

JPRS 77656

24 March 1981

East Europe Report

ECONOMIC AND INDUSTRIAL AFFAIRS

No. 2109



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DECREE ON JOINT ROMANIAN-BULGARIAN TRADE COMPANY

Bucharest BULETINUL OFICIAL in Romanian Part I No 7, 4 Feb 81 pp 1, 2

[Approval, by Decree No 203, 2 July 1980, of the Council of State, of the Establishment of "Dunarea" Ltd Joint Romanian-Bulgarian Company for Economic Cooperation and Marketing, the Association Contract and the Bylaws of the Company]

[Text] Under Decree No 203, 2 July 1980, of the Council of State, the establishment of "Dunarea" Ltd Joint Romanian-Bulgarian Company for Economic Cooperation and Marketing, the association contract and the bylaws of the company were approved.

Association Contract. Extras

For the purpose of more dynamically expanding economic cooperation in the area of mutual exchange of goods and especially in third countries,

The foreign trade companies: Uzineexportimport, Industrialexportimport, Geomin, Rompetrol, Arcon, Contransimex, Romagrimex,

Hereinafter called the Romanian party, and

The foreign trade companies: Tehnoexport, Agrocomplect, Bulgargeomin, Tehnoexportatrol, Masinoexport, Transcomplect, Tehnoimport,

Hereinafter called the Bulgarian party,

Agreed upon establishing in the Socialist Republic of Romania a joint Romanian-Bulgarian company for economic cooperation and marketing.

The headquarters of the joint company shall be in Bucharest Municipality in the Socialist Republic of Romania.

The field of endeavor of the joint company shall involve:

a. Completion of engineering projects and services, including consulting, designing, equipment delivery, construction and assembly of industrial, civil,

and transportation facilities, granting of technical assistance, training of personnel and others in third countries, in the Socialist Republic of Romania and in the People's Republic of Bulgaria, in the following areas: the chemical industry, the power industry, the metallurgical industry, geological, hydro-geological and oil exploration, the industry for production of construction materials, the machine building industry, the light industry, the food industry, the electrical engineering and electronics industries, woodworking enterprises, agriculture, land improvement and hydromelioration, industrial, administrative, and civil constructions, transportation and communications projects and facilities;

b. Participation in investment projects in the Socialist Republic of Romania, the People's Republic of Bulgaria and in third countries;

c. Marketing of products obtained in the activity of collaboration and cooperation, including those of the joint Giurgiu-Ruse company, and of other products, in the Socialist Republic of Romania, the People's Republic of Bulgaria and in third countries;

d. Other foreign trade and economic cooperation activities which shall be determined between shareholders,

The capital of the joint company is set at the amount of 280,000 transferable roubles and 1.4 million Swiss francs.

The supreme management body of the joint company is the General Assembly of Shareholders, which shall be established and shall operate in accordance with the provisions of the bylaws.

The General Assembly shall appoint the Board of Directors, which shall have the powers and duties specified in the bylaws.

The financial activity of the joint company shall be examined by the Audit Commission and, upon request, also directly by shareholders.

Bylaws. Extras

The Romanian-Bulgarian company for economic cooperation and marketing is a Romanian legal entity, having the legal configuration of a company of shareholders. It shall conduct its activity in accordance with the Romanian laws, the provisions of the association contract and of these bylaws.

The headquarters of the company are in the Socialist Republic of Romania, in Bucharest Municipality.

The company may establish branches, subsidiaries, offices, agencies and representations in any locality on the territory of the Socialist Republic of Romania, of the People's Republic of Bulgaria, and in third countries.

The company's span of operation shall be 25 (twentyfive) years, beginning with the date of registration of the joint company at the Ministry of Finance in the Socialist Republic of Romania. This may be extended on the basis of the decision of the General Assembly of Shareholders.

The registered capital is set at the amount of 280,000 transferable roubles and 1.4 million Swiss francs and is divided into 280 and, respectively, 1400 registered shares, each with a value of 1000 transferable roubles and, respectively, 1000 Swiss francs.

All the shares provide equal rights to shareholders. Each of the shares subscribed and paid by shareholders gives them the right to a vote in the General Assembly of Shareholders, the right to elect and be elected to the management bodies, the right to participate in the distribution of profits according to the provisions of these bylaws and the legal provisions, and other rights specified in the bylaws.

The General Assembly of Shareholders is the supreme management body of the company, that decides on the company's activity and on its economic and commercial policy.

The company shall be administered by a Board of Directors, comprised of six members, including three Romanians and three Bulgarians, appointed by the General Assembly of Shareholders for a period of 4 years.

The operative management of the company shall be ensured by a general manager and a deputy general manager, who shall implement the decisions of the General Assembly of Shareholders and of the Board of Directors.

The company's accounting procedures shall be supervised by shareholders and the Audit Commission.

The management staff of the company and the members of the Audit Commission shall be appointed by the General Assembly of Shareholders. The rest of the staff shall be hired by the Board.

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ENERGY PROBLEMS SEEN RESTRICTING ECONOMIC GROWTH

West Berlin DIW-WOCHENBERICHT in German Vol 48 No 3, 29 Jan 81 pp 57-62

[Analysis by Jochen Bethkenhagen: "GDR Energy Management Facing Difficult Tasks"]

[Text] Like all industrial countries the GDR must struggle with the problem of rising prices for energy raw materials. It is therefore the goal of GDR energy policy more to utilize domestic resources--especially brown coal deposits--, curb the rise in energy consumption and use new energy sources--primarily nuclear energy.

The Soviet Union has announced that its energy deliveries through 1985 will not exceed 1980 levels. Due to its lack of foreign exchange the GDR is not able to use other sources of imports. Consequently future energy policy will have to emphasize conservation. In fact there is substantial room for conservation, given the high specific energy consumption prevailing in the GDR. At the same time conservation and restructuring require extensive investments and a good deal of flexibility in the economic system. Furthermore the planned greater utilization of brown coal tends to be rather energy intensive. We must expect, therefore, that economic growth will decline as the result of energy shortages.

Problem No 1: Inflation of Energy Prices

The GDR was less badly affected by the rise in the prices of energy raw materials than many other countries. That was due mainly to the relatively slight import dependence of energy supplies and the special pricing principles ruling CEMA internal bloc trade.

Oil accounted for only 21 percent of the GDR's primary energy consumption¹ in 1979² (FRG: 50 percent), brown coal produced locally for 60 percent. The output volume amounted to 256 million tons, just under 20 percent of world production. The GDR is therefore the principal brown coal producer at international level.

Economically accessible brown coal reserves are estimated at 21 billion tons. In addition the GDR has some small natural gas deposits. In 1979 the annual output volume (8.5 billion standard cubic meters) amounted to 3 percent of the primary energy supply.

In terms of international comparison the GDR, generally, enjoys a great deal of self-sufficiency in energy supplies--nearly two thirds (FRG: 40 percent). On the other hand the GDR's import dependence has doubled since 1965; at that time only 17 percent of energy supplies were imported.

The GDR's Primary Energy Supplies 1970-1979

Primärenergieleistungen der DDR 1970 bis 1979									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Produktion bzw. Verwendung	Braun- kohle	Stein- kohle	Steinkoh- lenabf.- fälligkeit	Erdöl	Erdöl- produkte	Erdgas	Primäre- lektr. (1)	Verbrauch, insgesamt	
	in 1000 t				in 1000 m³		in 1000 kWh	in 1000 t SKE	(%)
1970									
(15) Erzeugung	261,5	1,0	-	0,2	-	1,0	1,3	80,4	77,9
(16) Import	3,9	0,2	3,1	10,3	0,1	0,2	1,4	26,1	25,3
(17) Export	3,8	-	-	-	1,3	0,0	0,0	3,3	3,2
(18) Inlandsverbrauch	261,6	0,2	3,1	10,5	- 1,2	1,1	1,8	103,2	100
1975									
(15) Erzeugung	266,7	0,5	-	0,2	-	0,0	1,3	70,8	69,9
(16) Import	3,4	0,4	3,0	17,0	0,1	3,2	4,1	39,0	34,6
(17) Export	2,3	-	-	-	2,0	0,0	0,7	5,1	4,5
(18) Inlandsverbrauch	267,9	0,9	3,0	17,2	- 2,7	11,2	4,4	112,7	100
1978									
(15) Erzeugung	253,3	0,1	-	0,1	-	0,0	1,2	80,4	68,1
(16) Import	3,3	0,9	2,6	19,9	0,2	3,6	11,9	49,9	37,7
(17) Export	2,2	-	-	-	1,9	-	3,2	4,7	3,9
(18) Inlandsverbrauch	254,4	0,0	2,6	20,0	- 1,8	11,6	10,0	121,6	100
1979									
(15) Erzeugung	256,1	-	-	0,1	-	0,5	1,3	81,5	63,9
(16) Import	3,0	0,7	3,0	20,7	0,2	4,3	13,7	50,9	39,9
(17) Export	2,2	-	-	-	2,2	0,0	2,7	4,9	3,8
(18) Inlandsverbrauch	256,8	0,7	3,0	20,8	- 2,0	12,8	12,4	127,5	100

(19) Abweichungen in den Summen durch Runden der Zahlen.

(20) 1) Strom aus Wasserkraft sowie Nettolieferung einschließlich Kernkraft.

(21) Quellen: Statistische Jahrbücher und Außenhandelsjahrbücher der DDR-Länder. Statistisches Jahrbuch des RDW. Berechnungen des DTW.

Key:

1. Production or use
2. Brown coal
3. Hard coal
4. Hard coal coke
5. Oil
6. Oil products
7. Natural gas
8. Primary electricity
9. Total consumption
10. Million tons
11. Billion standard cubic meters
12. Billion kilowatt hours
13. Million tons SKE [hard coal units]
14. Percentage
15. Production

Key continued on following page

16. Imports
17. Exports
18. Domestic consumption
19. Differences in totals due to rounding off of figures
20. 1) Electricity generated by hydropower and net imports including nuclear power
21. Sources: Statistical Yearbooks and CEMA Foreign Trade Yearbooks. "CEMA Statistical Yearbook." DIW computations

Some 80 percent of all energy imports come from the Soviet Union. Aside from the lack of foreign exchange, defense considerations may be the main reason for this one-sided dependence.

GDR Energy Imports From the Soviet Union 1970-1979

Raw Material	Unit	1970	1973	1975	1978	1979
Hard coal	million tons	3.3	3.7	4.0	3.9	3.9 ⁴⁾
Hard coal coke	million tons	1.5	1.1	1.0	1.0	1.0 ⁴⁾
Oil ¹⁾	million tons	9.3	13.0	15.1	17.8	18.5
Natural gas	billion standard cubic meters	-	-	3.2	3.6	4.3
Enriched uranium ²⁾	billion kilowatt hours	0.5	0.4	2.7	7.9	9.8
Total	million tons SKE	17.6	22.6	30.6	36.8	39.6
Imports from the USSR as a proportion of						
Total energy imports ³⁾	percent	67.1	63.1	78.4	80.2	77.6
Domestic consumption	percent	17.0	20.0	27.2	30.3	31.0

1) Including oil products.-- 2) Imports of uranium fuel rods in electricity equivalents.-- 3) Including nuclear power.-- 4) Estimates

Sources: GDR Statistical Yearbooks; CEMA Statistical Yearbook, various years; DIW computations

In the prevailing conditions--mainly its inadequate export strength--the GDR's earlier energy policy has been rather advantageous. Costs of brown coal production have risen by 50-100 percent in the past 10 years. The GDR estimates the total economic cost per thermal unit of natural gas to be 4 times greater and of fuel oil 8 times greater than of brown coal, although Soviet delivery prices are relatively low by comparison to world market prices. Corresponding to the pricing principles in effect for CEMA internal bloc trade, prices are fixed annually at the average of

the world market prices of the past 5 years. Some Soviet oil prices were 30-40 percent below OPEC prices; in 1980 the difference probably amounted to 50 percent. Consequently the GDR will be subjected to 1979's renewed doubling of crude oil prices on the world market only in the next few years. It is to be assumed that prices will rise by about 20 percent per annum.

Price Developments of Soviet Oil Deliveries to the GDR and World Market Prices
Earlier Development and Specimen Calculation

Year	World Market Price ¹⁾	Prices for Oil from the USSR ²⁾		Percentage Difference ³⁾
	Transferable Rubles per ton	Percentage Changes ⁴⁾		
1974	64.90	18.80	1	29
1975	56.90	28.20	50	50
1978	63.75	50.50	23	79
1979 ⁵⁾	77.25	56.00	11	72
1980 ⁵⁾	128.00	65.80	18	51
1981 ⁵⁾	146.20	80.00	22	55
1982 ⁵⁾	168.20	96.50	21	57
1983 ⁵⁾	193.30	116.70	21	60
1984 ⁵⁾	222.60	142.60	22	64
1985 ⁵⁾	255.90	171.70	20	67

1) Arabian light, fob Persian Gulf. API specific weight 34⁰-34.9⁰. A 15 percent annual rise in the world market price of crude was assumed for 1981-1985.-- 2) Computed from value and volume data. From 1980 on specimen calculation.-- 3) USSR price as a percentage of the world market price.-- 4) Compared with the previous year.-- 5) Estimates

Sources: 1979 GDR Statistical Yearbook. USSR Foreign Trade, various years. DIW computations

The financial burden on the GDR economy emerges clearly when we realize that the volume of crude oil imported from the USSR doubled from 1970 to 1980 while the value rose tenfold. This amount corresponds to nearly 30 percent of GDR deliveries to the Soviet Union (1970: 8 percent).

The GDR's balance of trade with the Soviet Union has been in deficit ever since 1975. From 1975 to 1979 the deficit achieved a value of 2 billion transferable rubles; this roughly corresponds to the total rise in oil imports during those years. Consequently, though oil holds a relatively small share in the GDR's energy consumption, and though Soviet delivery prices tend to be well below world market levels, the GDR needed Soviet loans to finance the rising cost of crude oil.

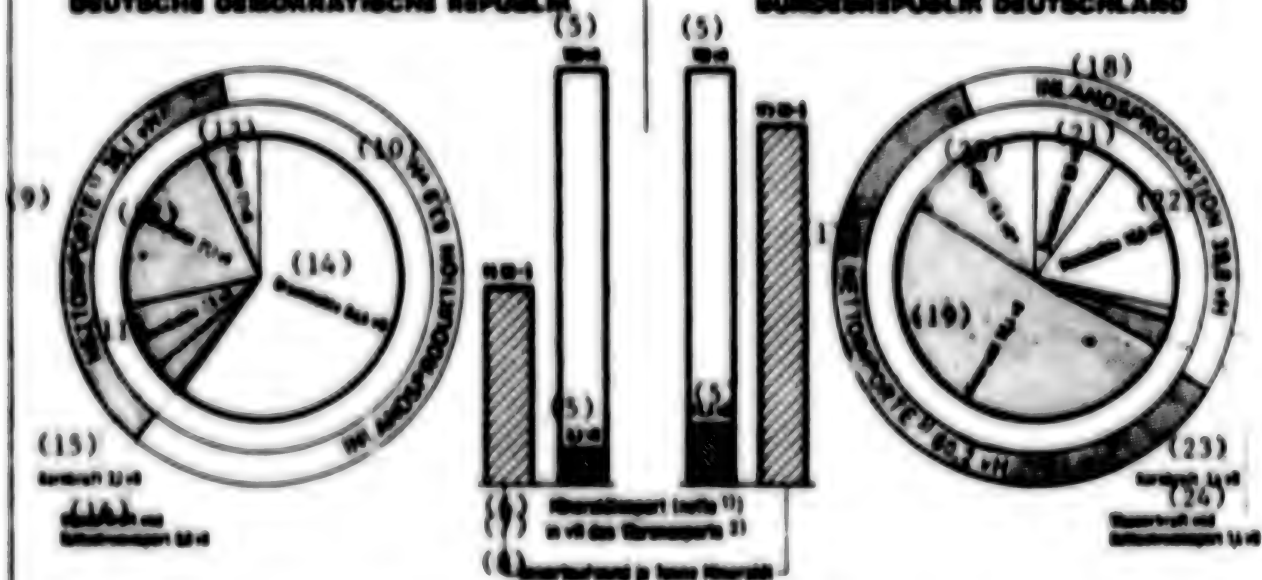
Structure of Primary Energy Consumption and Import Costs of Oil 1979

STRUKTUR DES PRIMÄRENERGIEVERBRAUCHS UND IMPORTAUFWAND FÜR MINERALÖL 1979

▷ (1) Inlandsproduktion ▷ (2) Nettoimporte

(3) DEUTSCHE DEMOKRATISCHE REPUBLIK

(4) BUNDESREPUBLIK DEUTSCHLAND



(25) 1) Nettoimporte = Import minus Export = 2) Brutto-Importe = 3) Nettoimporte + Import minus Export minus Hochseebunkerungen minus
Brennstoffänderungen. Abweichungen von der Summe der Importanteile für die einzelnen Energieträger ergeben sich aus dem Export-
überschuss der Standorte.

(26) Quellen: Statistisches Jahrbuch der Deutschen Demokratischen Republik, 1979; Außenhandelsjahrbuch der UdSSR, 1979; Statistisches
Bundesamt Wiesbaden (Hrsg.) Außenhandel, Fachserie 7, Reihe 1; Arbeitsgemeinschaft Energiebilanzen (Hrsg.) Energiebilanz für die
Bundesrepublik Deutschland für das Jahr 1979, Düsseldorf 1980.

GW 1

Key:

1. Domestic production
2. Net imports
3. GDR
4. FRG
5. Percentage
6. Oil imports (net)¹⁾
7. Percentage of goods exports²⁾
8. Import costs per ton of oil
9. Net imports¹⁾ #c.1 PERCENT
10. Domestic production 63.9 percent
11. Hard coal 7.5 percent
12. Oil 21.1 percent
13. Natural gas 7.1 percent
14. Brown coal 60.4 percent
15. Nuclear power 3.3 percent
16. Hydropower and net electricity imports 0.8 percent

[Key continued on following page]

17. Net imports³⁾ 60.2 percent
18. Domestic production 39.8 percent
19. Oil 50.4 percent
20. Natural gas 16.4 percent
21. Brown coal 9.8 percent
22. Hard coal 18.6 percent
23. Nuclear power 3.4 percent
24. Hydropower and net electricity imports 1.4 percent
25. 1) Net imports = imports minus exports.-- 2) Excluding oil.-- 3) Net imports = imports minus exports minus refueling at sea minus stock changes. Differences in the totals of import percentages for various kinds of energy arise from the export surplus of hard coal
26. Sources: 1979 GDR Statistical Yearbook; USSR Foreign Trade Yearbook, 1979; Federal Office for Statistics, Wiesbaden (published): AUSSENHANDEL, special series 7, No 1; Study Group Energy Balances (publishers): "Energiebilanz fuer die Bundesrepublik Deutschland fuer das Jahr 1979" /FRG Energy Balance 1979⁷, Duesseldorf 1980.

Problem No 2: Wasted Energy

Within CEMA the GDR holds first place with a 7.6 ton SKE per capital energy consumption. True, this is an indicator of its relatively high standard of development. At the same time it is remarkable that the per capita consumption level is as much as 15 percent above that of the FRG. This difference would not by itself be proof of the frequently criticized waste of energy. It is also the result of the high percentage of brown coal in energy supplies. By comparison to oil or natural gas brown coal transportation, conversion (for example into electricity, briquettes, chemical products) and storage involve greater energy expenditure and energy losses. Differences in the production structure may also be responsible for the large energy consumption.

Still, the example of electricity generation serves to show that the GDR's energy consumption is excessive when compared with that of the FRG: In 1978 the two German states used the same volume of brown coal (measured in thermal units) to produce electricity.⁵ The volume of electricity generated by brown coal power plants was more than 25 percent larger in the FRG than in the GDR. The lower efficiency of GDR brown coal power plants caused the annual additional consumption of slightly less than 25 million tons of raw brown coal, about 10 percent of annual output.

The GDR's industrial energy consumption is also relatively large. Though gross per capita electricity output is virtually the same in both German states, electricity consumption of private households in the GDR is only 50 percent; in 1978 it achieved the value recorded in the FRG in 1969. Per capita electricity consumption in GDR industry, transportation and farming, on the other hand, is slightly higher than in the FRG. As per capita output in the GDR is smaller, specific electricity consumption is bound to be considerably greater.

Per Capita Consumption in the GDR and the FRG 1978--in kilowatt hours

	GDR	FRG	GDR as percentage of the FRG
Gross consumption ¹⁾	5,774	5,808	99.4
Net consumption ²⁾	4,672	5,240	89.2
Household consumption	651	1,316	49.5
Miscellaneous sectors	4,021	3,924	102.5

1) Gross production plus imports minus exports.-- 2) Gross consumption minus consumption for making electricity available including transport losses.

Source: United Nations (Ed): Annual Bulletin of Electric Energy Statistics for Europe 1978, New York 1979, pp 23 and 41

According to GDR data heat consumption for space heating is also excessive; nearly one third of primary energy supplies are used for this purpose. Industrialized housing construction matches internationally customary insulation values in theory only: "Due to quality defects in construction work these normative values...are missed by 20-30 percent."⁶

Expansion of Brown Coal Production and Nuclear Energy

The GDR has few opportunities to make up for the stagnation or decline in energy imports by raising domestic output. Only brown coal production is capable of expansion. It is planned to raise the output volume of 257 million tons achieved in 1980 to 280 million tons by 1985 and 300 million tons by 1990 (an annual average of 1.4 percent). GDR energy supplies thus remain susceptible to poor weather conditions. Due to its large water content (50-60 percent) brown coal produced in strip mines freezes easily, and in the winter months this has often resulted in the disruption of supplies. It must also be expected that the quality of the brown coal mined will deteriorate along with production conditions (overburden per ton 3.7 cubic meters in 1970, 5 cubic meters in 1990).

The expanded brown coal output is intended to meet the growing needs of present users. These include especially burning in power plants (currently more than 40 percent). It is planned to raise electricity generating capacities from about 70,000 megawatt to 90,000 megawatt. As brown coal power plants are to account for more than 70 percent of electricity generation even in 1990, they would need the entire increase in brown coal output if specific consumption should remain the same. Unless the GDR succeeds in substantially lowering specific energy consumption in its power plants it will not be possible to meet the targets for the growth of electricity generating capacities without adversely affecting supplies for other sectors of the economy.

In future raw brown coal is to replace other energy sources, especially heating oil and hard coal, but also brown coal briquettes. Already only about 40 percent of oil

supplies are processed into heating oil in the GDR (VNO 1979: 57 percent). Further reductions are considered a priority, because oil imports are not to be increased through 1990. The principle for 1990's energy policy runs: "Wherever heating oil is still used as fuel, brown coal should replace it in order, by further processing to produce more high-quality and refined chemical products."

Production of Energy Sources in the GDR 1970-1979

Product	Unit	1970	1973	1975	1978	1979
Hard coal coke	million tons	2.6	1.9	1.8	1.5 ¹⁾	1.5 ¹⁾
Brown coal briquettes	million tons	57.1	50.2	48.9	48.5	48.7
Brown coal coke	million tons	6.3	5.7	5.5	5.2	5.1
Gasoline	million tons	2.2	2.7	2.9	3.2	3.3
Diesel fuel	million tons	3.6	4.0	4.9	5.6	6.0
Heating oil	million tons	4.6	6.7	8.1	8.5 ¹⁾	8.5 ¹⁾
City gas	billion cubic meters	4.3	4.8	5.1	6.2	6.5
Electric energy	billion kilowatt hours	67.7	76.9	84.5	96.0	96.8

1) Estimates

Sources: GDR Statistical Yearbooks, various years; GDR Statistical Handbook for 1980

Furthermore brown coal is also to be used as a chemical raw material.⁸ The plans actually provide for 80 percent of the growth in raw brown coal production through 1990 to be used to expand coal refining.

Aside from brown coal production only nuclear energy production, based on domestic uranium deposits, will be able to expand in the medium term. However, the uranium produced by the Soviet-German Corporation (Wismut) must be shipped to the Soviet Union. The latter in turn guarantees the delivery of fuel rods provided with enriched uranium and undertakes their reconditioning. Consequently the GDR is in fact totally dependent on imports in this sector also. Up to now two nuclear power plants are operating in the GDR—in Rheinsberg and Lubmin—with a total capacity of 1,830 megawatt. In 1979 10 percent of electricity were generated by nuclear power. The present capacity of the Lubmin nuclear power plant is to be doubled to 3,520 megawatt by '85. It is not certain yet when the first reactor block of the planned third nuclear power plant near Stendal will start up. By 1990 20-25 percent of electricity are to be generated by nuclear power plants; that would involve about 6,000-7,500 megawatt.⁹ Converted into thermal units this corresponds to some 75 percent of the planned growth of brown coal production.

No large-scale use of alternative energy sources is contemplated, although research regarding such developments has lately begun in the GDR. However, majority opinion holds that "in the next 20 years we cannot expect a significant contribution" from solar, wind or geothermal energy "whether in consideration of the potential not from the economic aspect."¹⁰

GDR Electric Energy Generation by Energy Sources 1970-1979

Energy Source	1970	1975	1978	1979
Percentage Shares				
Brown coal	83.2	82.8	81.4	79.5
Brown coal briquettes	1.8	0.9	0.8	0.7
Nuclear fuel	0.7	3.2	8.3	10.1
Oil	2.6	3.3	2.7	2.4
Hydropower	1.8	1.5	1.3	1.4
Hard coal	1.4	0.6	0.6	0.7
Other fuels	8.4	7.5	4.8	5.2
billion kilowatt hours				
Total production	67,630	84,303	93,963	96,843

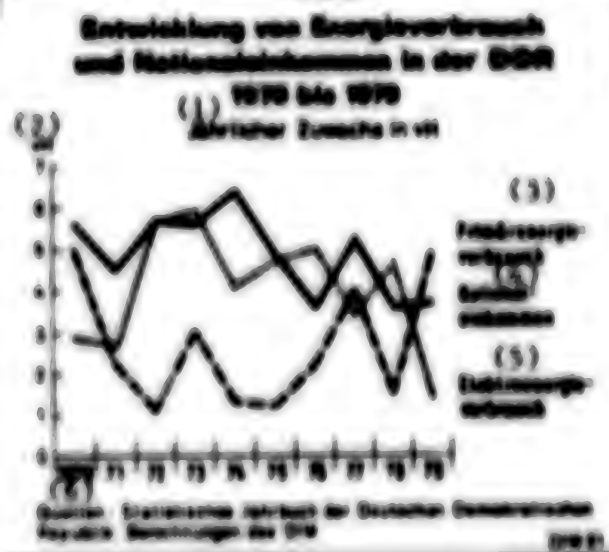
Source: GDR Statistics' Handbook, 1980

Energy Conservation by Normatives and Industrial Price Increases

In the past 10 years the GDR recorded successes in energy conservation. While the produced national income rose by an average of 4.8 percent per annum in the period 1971-1980, primary energy consumption rose by only 2.2 percent. As a result the GDR has by far the lowest rate of growth in energy consumption within CEMA. However, since 1976 conservation successes have declined rather noticeably; in 1979 the rise in primary energy consumption (4.9 percent) actually exceeded the rate of growth in the national income. The 1 percent decline in 1980 is most likely the result of 1979 stockpiling. 1980 developments therefore do not suffice to signal a new trend.

Conservation is to be enforced by consumption normatives, price changes and specific investments. Since 1979, for example, energy consumption as well as energy allocation has been the subject of state plan targets. If the quotas are exceeded, fines are levied for excess consumption, amounting to 10 times the purchasing price.¹¹ It has been shown, however, that plan targets are not well suited to take into account the specific situation prevailing in the various enterprises. In the case of several normatives actual energy consumption was up to 50 percent below the targets which cannot, therefore, be considered appropriate tools for the enforcement of efficient energy use. Not that this is surprising in view of the amazingly large numbers of materials consumption norms.¹²

Energy Consumption and National Income Development in the GDR 1970-1979



Key:

- | | |
|-------------------------------|--|
| 1. Percentage annual growth | 4. National income |
| 2. Percent | 5. Electricity consumption |
| 3. Primary energy consumption | 6. Sources: GDR Statistical Yearbook. DfW computations |

Probably more effective will be the annual price increases for electric energy, thermal energy and solid fuels, which are to take effect through 1985. Not touched so far--and that is unique within CEMA--have been energy prices for private households. Some of these indeed enjoy substantial subsidies; the price of 8 pfennig charged for 1 kilowatt hour, for instance, covers only half the actual costs of electricity generation. It is unlikely that appeals for savings will achieve a consumer attitude consonant with conscious energy conservation. On the contrary, in view of the current, relatively electricity consumption per household we should expect an above proportional rise in energy consumption by private households as the standard of living rises.

The energy balance is to be eased further by the expansion of the distant heat network. At this time only about 13 percent of residences are connected to that network. Temperature standards have been set for space heating. Better control is to be made possible by an increase in thermostat production.

In the transportation sector motor fuel is to be conserved by lowering speed limits, avoiding empty runs, shifting road transports to the railroad and speeding up railroad electrification. The railroad converted from steam to diesel traction and thereby saved a substantial volume of energy. It currently consumes 75 percent of diesel fuel supplies. According to GDR data the energy cost ratio of electric to diesel traction is 1 : 3. Appropriate investments could achieve cost reductions and savings of imports. Currently only 11 percent of the GDR rail network are electrified (FRG just under 40 percent); an increase from 1,600 km to 2,300 km is contemplated for the 1980's.

Outlook: Energy Shortage Limits Scope for Growth

According to preliminary plans the GDR will not raise imports of coal, oil and natural gas through 1990, mainly due to lack of money. It cannot be expected, therefore, that the GDR will be an additional customer on the world market. However, in the short term such an approach cannot be excluded because Polish hard coal deliveries (1979: 2 million tons) are uncertain in view of the loss of output suffered there. At the same time the assurance of a largely bloc originating energy supply is likely to continue a priority goal of GEMA energy policies.

Considerable investment resources will have to be made available to expand the energy supply by way of new developments in brown coal strip mining and the construction of nuclear power plants. The restructuring of energy use also involves additional costs so that in this decade also about a third of all industrial investments will have to be made available for the energy and fuel sector. Expenditures are also rising because, due to the shortage of foreign exchange, some uneconomic technologies (such as carbon chemistry) will have to be used.

If, while maintaining its current import volume (excluding enriched uranium), the GDR were to realize its targets for brown coal production (300 million tons) and nuclear energy (7,000 megawatt) through 1990, the primary energy supply would rise by only 1.7 percent per annum. The GDR will certainly succeed in further reducing specific energy consumption. While, however, in past decades energy conservation was facilitated by restructuring in favor of oil and natural gas, it is getting to be rather more difficult now due to the increased emphasis on brown coal. We must therefore consider it a success if the GDR were able to achieve the 2.2 percent to 4.8 percent ratio for the annual rise in energy consumption to national income recorded in the 1970's. Even if this optimistic assessment were realized, the result would be barely 4 percent economic growth. The energy shortage thus compels a reduction in economic growth.

FOOTNOTES

1. Primary energy consumption: Production of raw energy plus energy imports minus energy exports. Stock changes and refueling at sea are included in the FNC data, not those of the GDR.
2. 1979 data are preliminary because the 1980 Statistical Yearbook is not yet to hand.
3. The data published on cost rises in brown coal production published in the GDR media do not agree. The Minister for Coal and Energy, for example, stated: "The cost of domestic coal has doubled" (since 1961--editor's note). Wolfgang Hitzinger: "Coal Still Our Most Important Primary Energy Source," PRESSE-INFORMATIONEN No 121, 18 October 1979, p 2. Another source, though, says: "Nevertheless prime costs of raw brown coal production will rise in 1980 by more than 30 percent compared with 1970." Willi Rießer: "Energy Balances and Their Cover," WISSENSCHAFT UND FORTSCHRITT No 10/1980, p 396.

4. The conservation effect cannot be equated with absolute price differences, because prices of GDR exports to CEMA are also fixed as per this principle and therefore basically below world market levels. As, however, world raw material prices have risen faster than prices of other goods, there must have been a real saving.
5. See United Nations (Ed): "Annual Bulletin of Electric Energy Statistics for Europe 1978," New York 1979, pp 64 f.
6. C.-G. Schulz and H. Mueller, "Controlled Space Heating," DIE WIRTSCHAFT No 2/1979, p 18.
7. Erich Honneker, "On Typical Issues of Domestic and Foreign Policy," NEUES DEUTSCHLAND, 14 October 1980, p 3.
8. On the use of coal and oil in the chemical industry see "The Chemical Industry in the GDR," edited by Cord Schwartz, DIW-WOCHENBERICHT No 47/1980.
9. On the respective cooperation within CEMA see "Nuclear Energy Expansion to Ensure CEMA Self-Sufficiency in Energy Supplies," edited by Jochen Bethkenhagen, DIW-WOCHENBERICHT No 35/1979.
10. See Bernhard Kahn, "Why Are We So Concerned About Energy Conservation?," NEUES DEUTSCHLAND, 18 October 1979, p 3.
11. See GDR Council of Ministers resolution on the rational and thrifty use of electric energy, heat and fuels, NEUES DEUTSCHLAND, 21 September 1979, p 2.
12. "One of the major present problems of work with standards consists in constantly keeping the approximately 30 million materials consumption norms in the GDR at the most advanced possible level," PRESSE-INFORMATIONEN No 26/1980, p 6.

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PROSPECTS FOR DEVELOPING BIOGAS POTENTIAL REVIEWED

Leipzig **ENERGIETECHNIK** in German Vol 30 No 12, Dec 80 pp 466-470 manuscript received 24 Sep 80

[Article by Prof Dr Manfred Engshuber, engineer, Chamber of Technology (KDT); member, **ENERGIETECHNIK** editorial advisory board; and Jens Biet, engineer, KDT, Freiberg Mining Academy, Faculty for Energy Use: "Biogas--Its Prospects in the GDR"]

[Text] The incipient worldwide and long-term reorganization of the use of primary energy sources means that renewable energy sources acquire growing interest in addition to nuclear energy technology. An expression of this, among other things, is the vast flood of publications, above all those of the popular science kind. Here we might mention the radiation energy from the sun, wind, waves, and tide energy forms, the temperature potentials of the earth's crust (geothermal energy) and the oceans, but also the anaerobic microbial conversions (fermentation) of agricultural and forestry waste (biomass).

There is no doubt that their industrial utilization could not make any major contribution to meeting the energy needs of highly developed national economies. But the level already attained and the continuing rise in prices of mineral energy sources may make one or the other of these energy sources appear profitable right now especially if one must take other favorable factors (for example environmental protection into consideration (1, 2)).

It has been proven that the self-regenerating energy potentials in the GDR are rather underutilized and that their possible share in meeting the primary energy balance sheet requirements, related to the year 2000, at best could come to one percent (2). Regardless of that, there are several factors which indicate that preference should be given to the procurement of methane (biogas) from large-animal semi-liquid manure (beef cattle, hogs):

The possible energy procurement also from highly water-diluted organic substances with more than 95 percent water content, getting around the expensive dehydration or drying processes;

The yield of storable combustible methane-carbon dioxide mixture whose use is handled with the known methods of gas technology;

The possibility of--through the fermentation process--also again returning the vast volumes of semi-liquid manure and other organic waste into the natural metabolism in such a manner that the soil will not be damaged as an ecological system and that its fertility will be maintained;

The possible economic and technological contribution to semi-liquid manure processing if biological treatment methods are unavoidable for reasons of environmental protection.

In this way, agriculture, at least from the statistical viewpoint, could with its own resources counteract the growing energy-intensity of food production whose "energy efficiency" in (3) has been estimated at about 20 percent.

1. Biogas Generation Technique

1.1. Historical Survey

The technique of biogas generation is not new. It was realized already 100 years ago that human settlement waste water, charged with organic substances, can be settled (purified) by means of anaerobic rotting. But it was only Imhoff's decay room constructions which during the twenties led to broad-scale industrial utilization. Illustrated in a simplified fashion, the organic substance is--in a waste water treatment or biogas plant, charged into a tank where it is inoculated with a suitable bacterium and where it is left anaerobically, that is to say, without any air, at a temperature that is favorable for the metabolism of the bacteria, usually in the mesophile range at 30-35° C.

The developing methane-carbon dioxide mixture is collected in the tank head and then evacuated.

The plant as a whole, in addition to the rot tank, also has heating units, stirring mechanisms, circulating pumps, storage tanks, and possibly gas tanks.

During the years after 1945, this technology also spread to agriculture. Various methods and plants were developed and some large-scale industrial experimental plants were also built (GDR, FRG). Probably the most highly developed method was the one based on Schmidt-Eggeragelness (4, 5). Toward the end of the fifties, interest in biogas generation had died down again. The main obstacle proved to be the overwhelmingly individual-farm production setup with its low degree of animal concentration which does not permit the construction and operation of big biogas plants with modern equipment. Although the large percentage of straw in the stable manure was good for methane formation, it nevertheless, for example, due to the formation of floating covers (layers), led to big unresolved technological difficulties.

The operating costs connected with production were bound to be high under these conditions. The mostly still rather low energy rates at that time therefore offered no economic incentive whatsoever especially since there were no environmental problems that added to the cost.

1.2. Situation in GDR

In the communal economy of the GDR, anaerobic putrefaction technique is a firm component of waste water treatment although the developing treatment (settling) gas (biogas) is used only sporadically beyond local, in-use consumption.

No biogas plants are being operated in agriculture. But, over the past 25 years, a series of conditions changed to such an extent that it is worthwhile once again to consider the pros and cons of biogas generation. Among these we might mention the following:

Introduction of industry-scale livestock production, that is to say, stable facilities with at least 600 animal spaces, according to the situation in 1979, involving:

10.5 percent of slaughter cattle production,

4 percent of milk production,

7 percent of hog fattening (6);

Considerably increased overall and specific energy consumption for agricultural production;

Considerable progress in technological and industrial microbiology;

Altered and more favorable consistency of the charge substrate (semi-liquid manure with 2-8 percent almost fiber-free solid substance content) (7);

More economical biogas production due to generally higher energy source prices and higher costs for the correction of environmental contamination.

1.3. Tendencies in Biogas Technology

There are two tendencies which emerge in this technology:

(a) The use of "conventional" biogas technology with the simplest means and a large percentage of manual labor.

A typical example here is the Gobar Gas Plant, illustrated in Figure 1, which can often be found in India (8). Its capacity is poor and is adjusted to the relatively low gas consumption of a family or a village. The space-time yields likewise are low. On account of the subtropical climate, these plants work in the mesophile range without any auxiliary energy.

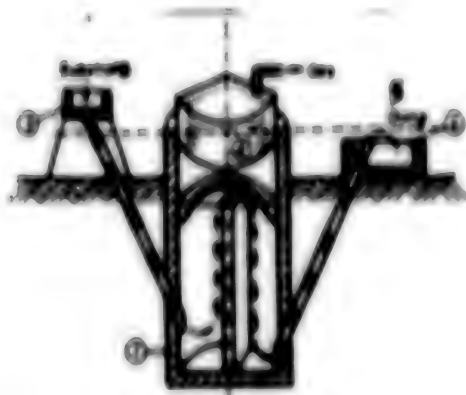


Figure 1. Diagram of biogas plant from East Asian area (GOBAR Gas Plant).
Key: 3--Manure.

This technique is obviously widespread in the countries of East and Southeast Asia in the technically underdeveloped rural areas. According to (9), more than 4.5 million and according to (10) as many as 8 million such plants are supposed to be in operation, especially in the PRC. From the hygienic viewpoint, these biogas plants are undoubtedly to be welcomed there. But they are by no means an acceptable solution for the modernization of agriculture which is urgent in all developing countries; considerable investment assets are tied up but in the final analysis they only stabilize existing backward production conditions (11, 12).

(b) Operation of large plants with space-time yields.

This is achieved through selection of suitable reaction agents which offer the microbes more favorable growth conditions. Raising the temperature (thermophile processes at 30-60° C) and other speed-increasing measures also help here.

The direct or indirect separation of the process in terms of space into at least two stages with corresponding returns makes it possible selectively to influence superposed microbial processes. The meaningful combination of anaerobic and aerobic process stages not only can facilitate the chemical decomposition of reducible organic substances but could also contribute to the energy autarchy of biogas production.

The development directions indicated here received their greatest impetus after 1945 from the progress made in fermentation technology (for example, penicillin production) and are far from completed.

The following examples will make that clear.

Figure 2 is a diagram of a biogas plant from the fifties (4). The reaction agent principle which we want here involves the ideally and thoroughly mixed stirring vat in its simple and sturdy design. Heating units and continual circulation have not yet been provided in general terms. If the plant works well, we can estimate a yield of 1-1.2 m³ biogas per m³ of rotting space and volume (22, 23, 26).

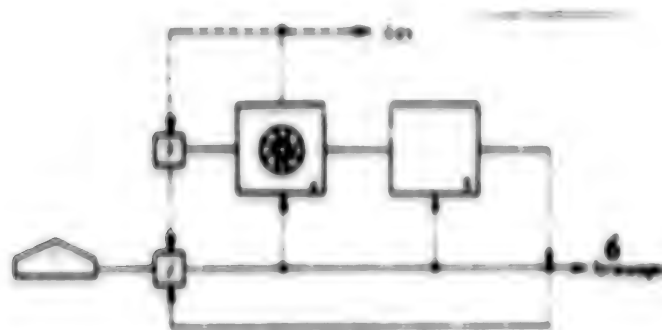


Figure 2. Technological diagram of biogas plant according to Schmidt-Eggergluss system. Key: 1--Stable; 2--Mixing tank; 3--Preheating unit (not yet generally provided); 4--Rotting tank; 5--Manure sludge silo; 6--Tank truck.

Figure 3 shows a technological diagram of a large treatment plant from the seventies for the combined processing of community waste water and semi-liquid manure (13, 14). The reaction agent principle here is the stirring-vat cascade. Heating and circulating units are urgently prescribed considering the size of the plant.

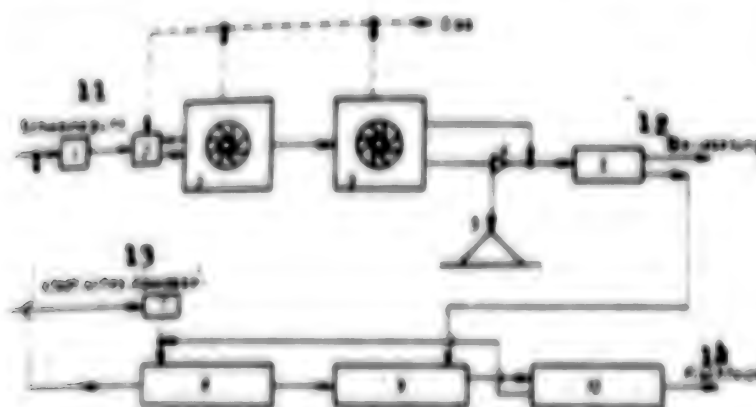


Figure 3. Technological diagram of purification plant at Trebon, Czechoslovakia. Key: 1--Raw sludge tanks; 2--Combined preheating plant; 3--Rot tank; 4--Centrifuge; 5--Compost unit; 6--Storage tank; 7--Rough preliminary cleaning; 8--Settling tank; 9--Activation; 10--Follow-up treatment tank; 11--Semi-liquid manure from hogs; 12--Sprinkling; 13--City waste water; 14--Fish pond.

Figure represents the technological diagram for the distribution of biogas generation in two separate reactors (reaction agents). In keeping with microbial decomposition or the participating microorganisms, the organic materials are liquefied in the acid fermenter by means of hydrolytically acting and acetogenic bacteria and are decomposed into acetic acids, CO_2 , and the like. In the methane fermenter, these products are further decomposed by means of methanogenic bacteria mostly into methane and carbon dioxide. The separation in terms of space makes it possible, for each of the microorganism groups involved, to maintain optimum living conditions, for example, the pH value (15).

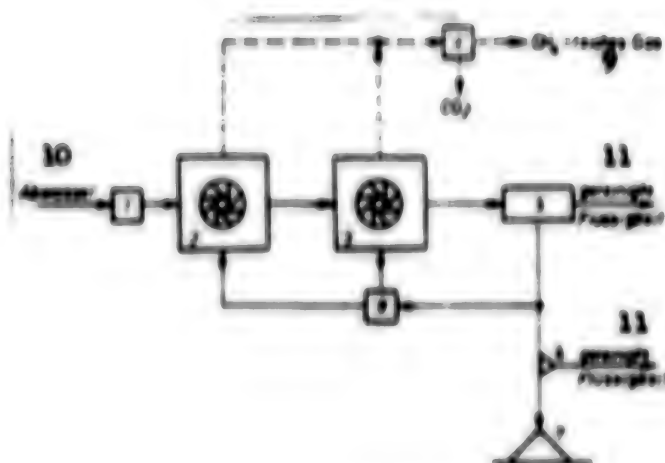


Figure 4. Simplified technological diagram of anaerobic two-phase process. Key: 1--Hydrolytic decomposition; 2--Acid fermenter; 3--Methane fermenter; 4--Gas purification; 5--Storage tank; 6--Dehydration; 7--Compost unit; 8--Hydrolytic decomposition; 9--Gas rich in CH_4 ; 10--Waste water; 11--Purified liquid.

Figure 5 shows the technological diagram of a big purification plant with subdivision of the anaerobic segment into two stages and activation series-connected in advance. According to (16), such a plant, relative to the same substrate yield, makes it possible to reduce the capacity of the entire decomposition zone, as compared to a conventional anaerobic high-performance fermenter, by 30 percent and more. At the same time, there is also supposed to be a greater gas surplus. In such a plant, the charging of high-performance reaction agent types, such as filler, bubble-column, or loop reactors [reaction agents], could result in additional considerable productivity reserves.

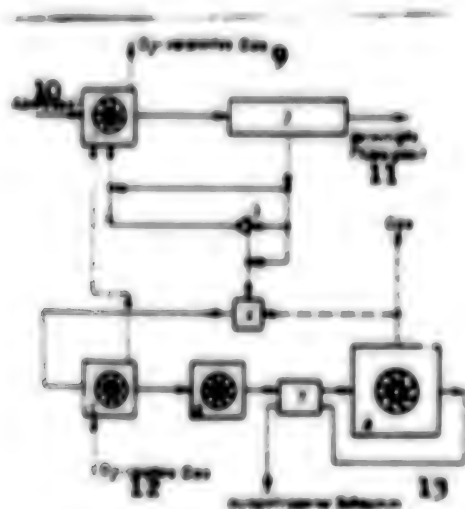


Figure 5. Technological diagram of method for decomposition of sludge. Key: 1--Gas treatment zone; 2--Purification (settling) tank; 3--Dehydration; 4--Pre-heating unit; 5--Aerobic decomposition zone; 6--Acid fermenter; 7--Heat transfer unit [converter]; 8--Methane fermenter; 9--Gas poor in O_2 ; 10--Waste water; 11--Purified liquid; 12--Gas rich in O_2 ; 13--Sludge discharged.

Generally speaking, we can now detect a transition from the ideal and thoroughly mixed stirring reactor to the ideal flow pipe whereby the stirring reactor cascade, with its subdivision in terms of space, represents a transition form. This trend points very much toward maximum gas yields coupled with relatively slow, concentration-dependent methanogenic stage.

2. GDR Theoretical Biogas Potential

The basis of biogas production of course could only consist of those domestic animals which are being kept in sufficiently large numbers in stables or elsewhere in an intensive fashion and whose excrements consequently are obtained in a concentrated manner so that mechanical removal is unavoidable.

Here we consider first of all beef cattle and hog semi-liquid manure while other agricultural waste products frequently are already being utilized in other ways--such as straw or chicken manure--or are obtained in quantities that are too small. Human settlement and industrial waste are already being processed anyway.

Table 1 is a survey of the animal inventory kept in production cooperatives and farm cooperative installations (17). Among the restrictive conditions mentioned there and the specific gas yields given for guidance in Table 2, we can figure a theoretical potential of about 6 hm³ [cubic hectometers] of biogas per day.

If we consider only industry-scale animal keeping as a potential source--something which would also be realistic in looking at the first implementation stage--then we could figure on a daily yield of 0.5 hm³ of biogas at most. If, as basis, we use its average caloric value ($v_{CH_4} = 0.6$; $v_{CO_2} = 0.4$) of $H_{1,n} = 22 \text{ MJ/m}^3$ (interval:

$H_{1,n} = 21 \text{ to } 23 \text{ MJ/m}^3$), that would correspond to a gross energy output of 10.5 TJ/d. That would be on the order of magnitude of 1-2 percent of current gas consumption in the GDR and something like 5 percent of the replaceable utility energy consumption for agriculture. The net energy yield is left after deducting the local, in-house consumption. As a rule of thumb for conventional stirring reactors we can say that the numerical value for in-house consumption given in percent is roughly equal to the fermentation room temperature in degrees centigrade. If the fermentation process, for example, is undertaken in the mesophile range at 33° C, then the in-house energy requirement is estimated at 30-35 percent.

The putrefaction room temperature required to guarantee the necessary auxiliary energy (process heat) can be supplied in three ways in the extreme case:

(a) Process heat is supplied completely from the gas generated. This considerably impairs the economy and also the attractiveness of the method. Output-increasing measures, such as working in the thermophile range are accomplished at the expense of the net gas yield.

(b) Process heat is provided through outside energy sources. This solution is particularly advantageous if industrial energy source yields with a suitable temperature level and sufficient volume--such as cooling water from power plants and smelter plants, liquor [vapor] water, and others--are available. Because of the necessarily decentralized location of biogas plants, the site selection therefore plays a role here.

(c) As mentioned in (16), the process heat is supplied through an aerobic, exothermal stage which is series-connected in advance. A technical solution would be in line with the principle of a thermostat in whose outer casing the aerobic processes take place and work in a temperature-stabilizing fashion for the anaerobic processes in the inside compartment.

3. Possibilities of Influencing Biogas Generation

Temperature exerts the strongest influence on the conversion speed (figures 6 and 7). Here we have pronounced maximums in certain temperature ranges. The gas composition depends on the origin of the original material and the speed of the putrefaction process. As the putrefaction time grows longer, the methane content increases.

Table 1. GDR Animal Inventory (1969), Manure Yield and Possible Gross Gas Yield

Typen 5	Anzahl (in 10 ⁶ Stück) 6	Masse (in t/d) 7	Brutgasanfall (in km ³ /d) 8	aus industriemässiger Haltung (in km ³ /d) 10
Kühe 11	1.2	100	1.5	0.00
übrige Rinder 12	1.2	100	1.5	0.00
Schweine 13	1.5	50	1.5	0.11
Hühner 14	20	1	0.1	0.00
Summe 15		251	4.1	0.00

Key: 1--In production cooperative and farm cooperative installations; 2--Related to 20 percent dry substance content according to (25) and 50-percent decomposability; gas volume figures related to standard condition; 3--Average value used; 500 m³ of gas per ton of dry substance; 4--According to (17), about 50 percent are kept in an intensive manner; 5--Animal species; 6--Number¹ (in 10⁶ head); 7--Manure yield according to (24); 8--Gross gas yield²; 9--In cubic hectometers per day; 10--From industry-scale animal keeping (in cubic hectometers per day); 11--Cows; 12--Miscellaneous beef cattle; 13--Hogs; 14--Chickens; 15--Total.

Table 2. Specific Gross Gas Yield (Figures for Guidance Only) from Various Initial Substances (Related to Standard Conditions)

Ausgangsstoff 3	Gas- ausbeute (in m ³ TSP) 4	Gas- ausbeute (in m ³ OTE) 5	Methan- ausbeute (in m ³ OTE) 6	Faulzeit (in d) 7
Rinderkot (18) 8	200	200	200	110
Schweinekot (18) 9	200	200	200	110
Hühnerkot (18) 10	200 bis 250			
Rindermist (18) 11				
(Kot, Harn, Streu) 12	200	200	200	110
Küschlamm (18) 13	200			
Gras (21) 14	200			
Stroh (21) 15	200	200	200	100
Futterrüben- blätter (18) 16	200	200	200	10
Wassermelone (18) 17	200	200	200	60

[see following page for key]

(Key to Table 2)

Key: 1--Dry substance; 2--Organic dry substance; 3--Initial material; 4--Gas yield (in m³/t dry substance)¹; 5--Gas yield (in m³/t organic dry substance)²; 6--Methane yield (in m³/t organic dry substance); 7--Rotting time (in days); 8--Beef cattle excrementa; 9--Hog excrementa; 10--Chicken excrementa; 11--Beef cattle manure; 12--Excrementa, urine, straw; 13--Settling sludge; 14--Grass; 15--Seed; 16--Fodder beet leaves; 17--Wheat straw; [numbers in brackets in table refer to bibliographic references].

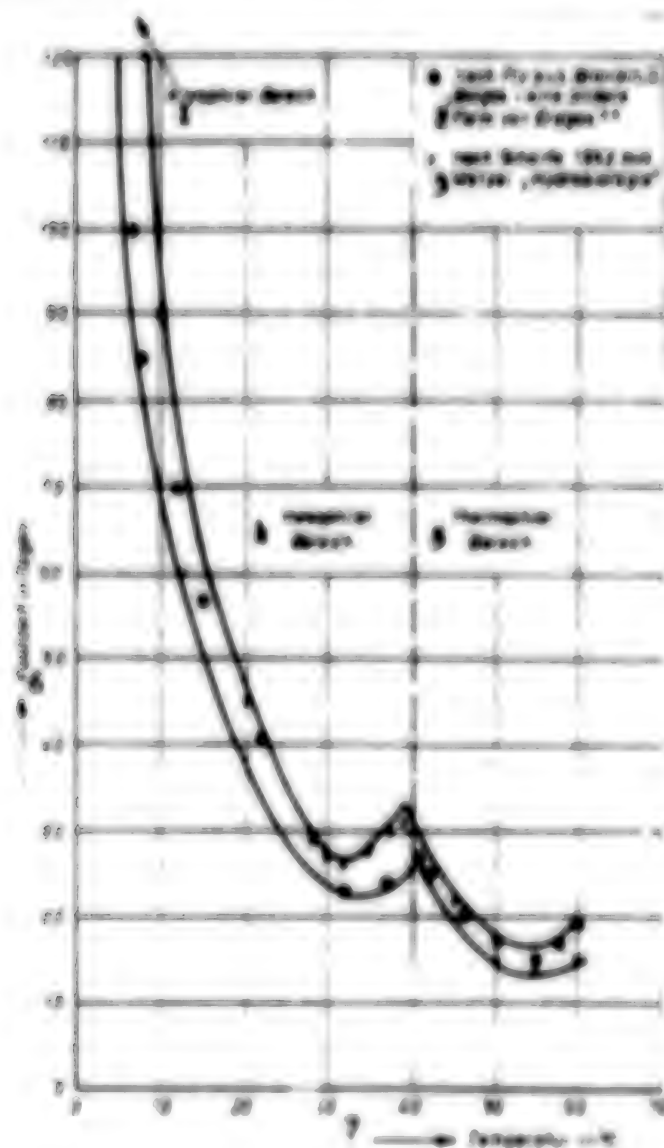


Figure 6. Rotting time as a function of temperature. Key: 1--Cryophile range; 2--According to Fry from Blondin, G. "Biogas--A Different Form of Natural Gas?"; 3--According to Scharfe, von Metzel "Hydrobiology"; 4--Mesophile range; 5--Thermophile range; 6--Rotting time in days; 7--Temperature in °C.

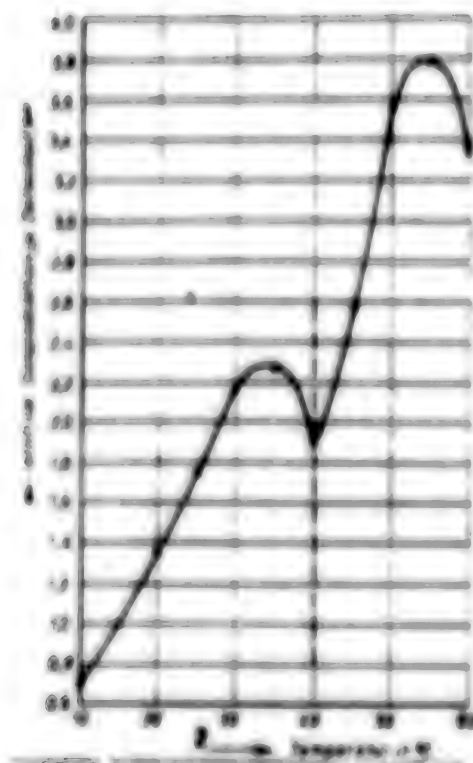


Figure 7. Relative gas production as a function of temperature (related to 15° C).
 Key: 1--Relative gas production per unit of time; 2--Temperature in ° C.

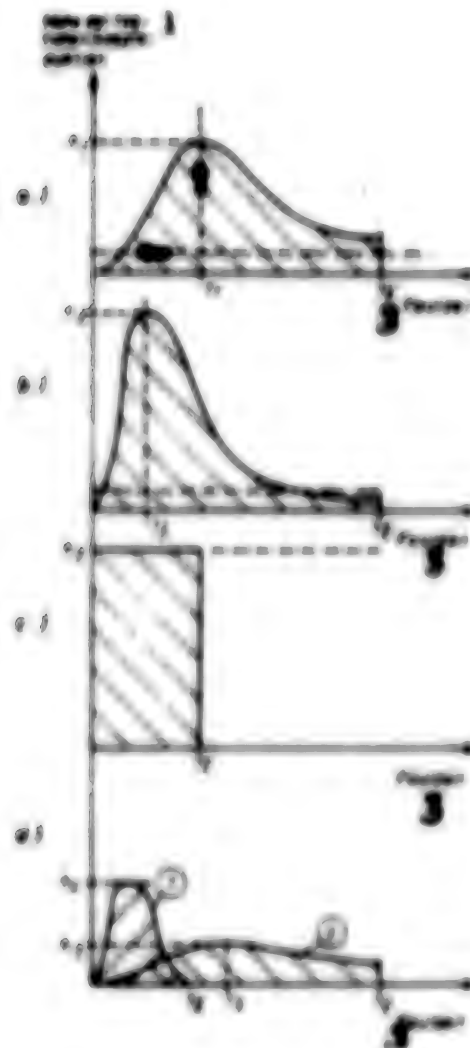


Figure 8. Volume of daily gas production as a function of various factors.
 Key: a--Mesophile putrefaction; b--Thermophile putrefaction; c--Ideal rotting process; d--Inhibitions of rotting process; 1--Due to excessively high rotting room charges; 2--Due to excessively low rotting room charges; 3--Rotting time.

In case of complete decomposition and composite substrates, we can compute the gas composition in advance according to the universal formula of Boyle:

$$C, H, O, N, S + \left(a - \frac{b}{2} - \frac{c}{4} + \frac{M}{2} + \frac{S}{4} \right) H_2O \rightarrow$$

$$\left(\frac{b}{2} + \frac{b}{4} - \frac{c}{4} - \frac{M}{2} - \frac{S}{4} \right) CH_4 + \left(\frac{a}{2} - \frac{b}{4} + \frac{c}{4} + \frac{M}{2} + \frac{S}{4} \right)$$

$$CO_2 + dNH_3 + eH_2S$$

Figure 8 shows various ways in which the decomposition process of a completely decomposable substrate can be influenced.

Figure 8a shows the course of daily gas generation which is characteristic of mesophile putrefaction. At point in time t_1 we get a maximum; then the process declines and is stopped for economical reasons at point in time t_2 .

The arrows shown here point in the direction in which the process is influenced in order to approach the ideal course which is illustrated in Figure 8c.

The course reproduced in Figure 8b corresponds to the course of thermophile putrefaction. The gas generation maximum appears sooner ($t_1 < t_2$) and it is also more pronounced ($h_1 > h_2$). As mentioned elsewhere, the space-time yield is greater than in the case of mesophile putrefaction so that the rotting process can be broken off in terms of time sooner ($t < t_2$). But it must be observed that increased temperature alone does not enable us to increase the specific gas yield. If this is to be achieved (in case of microbially only partly reducible charged substrates), then a decomposition stage (thermal, chemical, enzymatic) must be series-connected in advance. The course of subsequent gas generation then qualitatively follows the thermophile process.

Figure 8d shows inhibitions of the rotting process, such as they are characteristic of excessively high rotting room charging with fresh substrates or an excessively large share of rapidly reducible substances (1) or for excessively low rotting room charges, a shortage of quickly reducible substance, or insufficient thorough mixing in the tank (2). In case of mixed substrates, such as semi-liquid manure, we have two or more decomposition processes which are superposed in terms of time so that, for example, an initial submaximum is quite pronounced.

4. Summary

The use of biomass (semi-liquid manure) for generating biogas is again acquiring interest among self-regenerating energy sources. There are some aspects that point to a revival of this process also in the GDR.

The technique of biogas generation emerged from anaerobic putrefaction of settlement waste waters. At this time, several million plants are being operated in Asian countries according to the simplest conventional methods. But the trend is toward multistage high-performance reactors and methods for which we already have a series of proposals.

The usable potential in the GDR--related exclusively to industry-scale animal keeping--presently corresponds to about 0.5 km³ of biogas per day.

Thermophile process conditions and decomposition methods are possibilities of influencing the specific biogas yield and productivity of the method.

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Manuscript received on 24 September 1980.

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CSD:2300

PRINCIPLES, CHARACTERISTICS OF INVESTMENT POLICY DESCRIBED

Budapest PARTELET in Hungarian No 2, Feb 81 pp 12-15

(Article by Janos Juhász, official of the NSZMP Central Committee's Department of Political Economy: "The Principles and Characteristics of Our Investment Policy")

(Text) The improvement and consolidation of economic equilibrium are a constant objective of our economic policy under the Sixth Five-Year Plan, and this objective must be realized consistently. Therefore the domestic use of national income, and accumulation within it, can develop basically as a function of the rate of economic growth, and of the requirement of restoring external economic equilibrium. On the basis of the possible growth of national income and of its domestic use, the amount that can be allotted for the socialist sector's investment during this intermediate-plan period is essentially the same as in 1976-1980, between 1020 and 1040 billion forints at current prices.

Investment policy under the Sixth Five-Year Plan will be a continuation of the process that we started under the Fifth Five-Year Plan. The more important characteristics of this process are as follows:

- Shortages on the investment market have subsided;
- The moderation of investment has helped to improve economic equilibrium;
- Harmony between the planned and actual realization of large-scale investments has improved;
- Efforts to complete investments have intensified, as a result of which the volume of unfinished investments has declined.

From all this it follows that the basic task at present is to reinforce the favorable trends, respectively to make them permanent, in entire investment activity.

In Agreement With the Possibilities

The planned investments are in agreement with our possibilities and will ensure economic growth based on efficiency, and also the improvement of

the population's living conditions. We must also bear in mind that significant capacities were started up shortly before the commencement of the plan period, or will start up at the beginning of the plan period; the allotments--if used prudently and economically--will be sufficient to substantiate the objectives, and will simultaneously make faster growth possible later on, providing the foundations for the formation of the resources that will be necessary for this purpose.

In the expedient use of the by no means insignificant amount that can be spent on investments, emphasis will have to be on the efficiency of the investments. Even large amounts can be spent less expediently, without sufficient economization. With better and more sensible management, on the other hand, the results can multiply. Now we must truly devote more attention to ensuring that every forint spent will effectively serve the realization of our economic and social objectives. We must develop and expand our economy and social conditions in areas where investments can be used efficiently and satisfy actual needs, warranted at our present level of development.

The fact that our developmental possibilities are limited should motivate us to utilize our available resources more prudently in every area, in both the productive and nonproductive branches. Incidentally, this requirement is always valid, but now it is a necessity.

The investment possibilities will permit a significant expansion of the stock of fixed assets, considerable modernization in the nature of reconstruction, and a further improvement in the level of supply. This can best be conveyed if we list the specific investment plans in several principal areas.

-Industry's development will be aided by a total investment of 355 to 370 billion forints in five years. This will increase industry's stock of fixed assets by 32 to 33 percent. Within investment in industry, the share of energy-related investments (in the mining and electric power industries) will increase, while the share of the other industries will decline. Central state resources may be used primarily to fund significant development programs for improving the economy's energy, raw- and basic-material supply, and for long-range industrial development. In the other areas of industry--particularly in manufacturing--the economic organizations can solve the expansion of production, the production structure's transformation and the improvement of competitiveness, primarily through the modernization and reconstruction of the existing production installations, within the enterprises' decision-making competence and with enterprise resources.

-The food industry's development will be based primarily on the large-scale plants built in recent years or now under construction. Development projects may be undertaken primarily with enterprise resources, mostly as expansions involving reconstruction. As in the past period, food-industry enterprises may continue to compete for credit on favorable terms, to finance the expansion of export capacities.

-Agriculture's development will be aided by 128 to 135 billion forints of investment, at current prices. The proportions of investment in machinery, and of modernizations and expansions in the nature of reconstruction, will increase. It will be expedient to utilize as fully as possible the buildings that still can be operated economically for their intended use, or which can be renovated at small cost, and at the same time efforts should be made to build less costly and more simple buildings. State aid for soil improvement, new plantations and procurement of machinery will be maintained. A system of state aid, supplemented by favorable credit terms, will be instituted for the construction of buildings that are important from the viewpoint of production policy (capacities for hogs and dairy cows).

-A total of 124 to 134 billion forints can be allotted during the plan period for the development of transport and communications; and 52 to 54 billion forints, for the modernization and maintenance of the highway network.

-Retail trade's total floor space will increase by about 400,000 square meters. This will permit undisturbed retail trade, under conditions that meet higher standards than at present. Wholesale trade's storage space will increase by about 600,000 cubic meters. This will permit better retention of the products' quality and a curtailment of outdoor storage. The new trade facilities will serve primarily to alleviate the disproportions by regions and specialty stores, and to supply the areas and new settlements that are not supplied at present. At the same time, preference will be given to the intensive modes of capacity expansion, for example, to solutions that will modernize the serving of customers.

-It will be possible to build 74,000 to 78,000 new housing units each year under the Sixth Five-Year Plan, a total of 370,000 to 390,000 new housing units. In agreement with the territorial distribution of the demand for housing, and with the material and technical conditions of housing construction, nearly two-thirds of the new housing units will be built in the capital, in provincial cities, and in settlements that are becoming urbanized. Municipal housing construction will continue at the already attained high level of public-utility service and installed fixtures. The present average floor space per housing unit will essentially be retained, but at the same time the differentiated demand for housing will be better met by increasing the present proportion of apartments with an extra half-room, and of smaller units that meet special needs (buildings for retired persons, rooming houses, etc.).

-The development of public health during the plan period will occur primarily through the reconstruction and expansion of existing institutions. With the addition of about 6500 to 7000 new hospital beds, the net increase of the total number of beds in medical institutions--with allowances for the beds in hospitals that are to be closed down--will be about 5500. More-efficient organization and other measures will enhance the better

utilization of valuable medical equipment. The modernization of medical institutions, and the upgrading of their stock of machinery and instruments will continue.

Between 9,000 and 10,000 day-nursery cribs will be established, primarily in the settlements where housing construction is concentrated. Kindergarten capacity will be expanded during the plan period to accommodate between 30,000 and 35,000 more kindergarten pupils. In this way between 93 and 95 percent of the age group in question will be able to attend kindergarten.

-The number of general-school pupils will increase by about 130,000 during the plan period. The problem of assigning this increasing enrollment to classrooms can be solved by establishing between 5,500 and 6,000 new general-school classrooms, partially through new construction and additions, and partially through organizational measures. As a result of development, it will be possible to maintain the present average class size.

In secondary education--secondary schools and vocational schools--the principal objective is to improve the average class size, and the conditions of practical training. The conditions of higher education will improve primarily through the starting or continuing reconstruction of several higher educational institutions. The availability of machinery and instruments can be improved mostly through better cooperation between educational institutions and research institutes, through the wider joint use of valuable equipment.

-The reconstruction of cultural institutions will likewise continue. The Hungarian State Opera will be completed, and the reconstruction of several provincial theaters will begin. The film studio's reconstruction and expansion will continue. The construction of six to eight significant municipal and megye cultural institutions, and of the Budapest Great Sports Stadium, will be completed. The conditions of television and radio broadcasting will improve.

Differentiated Development

Development policy under the Sixth Five-Year Plan places increased emphasis on selectivity, on the requirement of differentiated development. This requirement must be asserted consistently and, in a certain sense, in a different conception than up to now.

Because of the objective difficulties in the supply of energy, and of raw and basic materials, the level of strategically important investment for the production of energy and basic materials cannot be reduced. At the same time, great care must be devoted to the concentrated and economical realization of these investments, to the expedient timing of new investment starts.

Because of our limited investment possibilities, we are unable to undertake the maintenance or modernization of the technological level of the economy's entire stock of fixed assets, nor would this be in our interest, in view of the requirement to accelerate the production structure's transformation. In the interest of developing preferentially the profitable and effective economic activities, we must undertake and even force the curtailment of uneconomical activity, and in some instances its shutdown.

Consistent application of the principles of price regulation and financial regulation can serve well selective development based on economic efficiency, the formation of investment opportunities as a function of the profitability of enterprise activity. This principle must be asserted also because otherwise we would have to limit the developmental possibilities of enterprises that are capable of developing economically and of contributing toward the restoration of economic equilibrium. Selection based on economic efficiency is enhanced by the curtailment of state aid for development, and by the expansion of the requirement to repay state aid.

Credit will aid more forcefully the development projects that serve the expansion of competitive export and economical import substitution. In our credit practice we will place emphasis on aiding the realization of development projects that can be completed within a short time, have short payoff periods and efficiently contribute toward the restoration of economic equilibrium.

Pursuit of a selective development policy must be enhanced also by accelerating the liquidation of the economic barriers to differentiation. For example, provisions must be made for importing, or for organizing the economical domestic production of, certain basic consumer goods that at present are being produced uneconomically; for the profitable substitution of uneconomical export; and for reassigning workers who are not efficiently employed.

Realization of the fundamental objectives of our social policy requires that the level of investment in the nonproductive branches slightly exceed the level under the Fifth Five-Year Plan. Preference in this area will be given to investments for basic medical care, for developing the network of general schools, and for housing construction. About 50 percent of the total nonproductive investment will be used for these purposes. In other areas we will be able to meet only minimum demands, strongly limiting new investment starts and continuing to ban some of them, for example, the construction of office buildings.

Economical Management

An important requirement of our investment policy is the prudent use of investment resources and the prevention of waste. In the interest of increasing the efficiency of investments, the principle must be asserted that construction work be allowed within the circle of productive investments only

where new construction is unavoidable. It is in our interest to achieve expansions primarily through reconstruction, where the conditions for increasing profitability are ensured through the modernization, supplementation and minor enlargement of the existing installations.

We must also reduce investment costs. This can be enhanced by reinforcing entrepreneurial behavior in construction activity, by providing incentives for the economical domestic substitution of machinery import, by organizing trade in used and dispensable capital goods (buildings, structures, machinery), by making investment activity better organized, by strengthening contractual and accounting discipline, and by intensifying control.

If the earmarked amounts are used prudently and economically, they may be sufficient for the realization of our objectives. But our investment targets can be fulfilled without failure only if the planned progress is achieved in improving the efficiency of production and in the realization of our equilibrium objectives.

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C80: 2500

CHARACTERISTICS OF ECONOMIC-FINANCIAL SELF-MANAGEMENT IN ENTERPRISES

Bucharest REVISTA ECONOMICA in Romanian 9, 16, 23 Jan 81

[Article by Prof Dr Aurel Negucioiu: "Characteristics of the Economic and Financial Self-Administration of the Enterprises"]

[No 2, 9 January 1981 pp 19, 22]

[Text] The Development of the Economic and Financial Self-Administration of the Enterprises'—a Permanent Imperative

Economic practice, the concrete economic results obtained by the productive units, confirms fully the correctness of turning to the new economic and financial mechanism, to worker self-management, the self-administration and self-financing of the enterprises. Real and concrete economic practice also brings out the objective necessity, the utility and advisability of the action of synthesizing and extending the positive experience already acquired and the action of immediately eliminating the shortcomings that are still found in the activity of enterprises, of collective leadership bodies. Moreover, the improvement, development and consolidation of the economic and financial self-administration of the economic units represent a permanent objective necessity, generated by the current conditions of modern socialist production, by the laws of expanded socialist micro- and macroreproduction. Among the objective factors that act in this direction there are, first and foremost:

1. The marked growth of the economic potential of the enterprises and centrals, as a result of the action of the law of concentration and centralization of material production;
2. The expansion of the division of social labor, the accentuation of the process of diversifying and specializing the producers and of the interdependence between the productive economic units;
3. The intensification of the process of integration of scientific research, material production and education, the accentuation of the objective necessity of increasing the contribution of Romanian science and of the research in each unit to the progress of material production;
4. The accentuation of the intensive character of expanded socialist micro- and macroreproduction;

5. The development of the relative autonomy and independence of the economic units, the accentuation of the necessity of increasing the degree of utilization of each unit's economic holdings and the creative potential that it possesses.

Directions of Action

Orienting the working people's efforts in accordance with the action of the objective laws that govern the homeland's advance along the path to the multilaterally developed socialist society, the "general staff" of Romanian society, the Romanian Communist Party, has established the main directions in which it is necessary to act in order to provide the consolidation and development of the economic and financial self-administration of all the enterprises and the other economic units. As follows from the documents of the 12th party congress and from the writings of the secretary general of the party, among these directions there are:

1. The growth of the efficiency of economic activity;
2. The growth of the cohesion, solidarity and responsibility of each production staff, of each staff of working people;
3. The improvement of the activity of preparing and substantiating the plan for economic and social development in each unit;
4. The promotion of the strategy based on rationalization, innovation and invention;
5. The improvement of the records and control of economic activity.

The Growth of the Efficiency of Economic Activity

By means of its functions and mechanism, economic and financial self-administration has the mission of providing efficient management of the means of production, of that part of the common property that is put under the administration of each production staff. As Comrade Nicolae Ceausescu pointed out, "No enterprise can perform a normal activity if it is not based on the results of its own labor, if it does not provide for not only its current production but also its development, on the basis of growth in production, growth in net income and continual growth in economic profitability."²

Indeed, the raising of the qualitative level of economic activity and the continual growth of net output, of the profitability and efficiency of economic activity are factors that influence directly and determine the vitality of the economic units, their capacity to finance themselves, to develop themselves and to contribute to the general progress of society.

The concrete level of the efficiency of the economic activity of the enterprises is the result of the action and interaction of a large number of factors, among which we mention:

- a. The agreement of material production judged by volume, structure, quality and so on with the real economic needs and the solvent demand on the domestic and foreign markets;

- b. The enterprise's capacity to adapt itself to the new requirements of the market;
- c. The quality of the products furnished and the services performed;
- d. The level of the production and circulation costs;
- e. The degree of complexity of the processing of natural resources;
- f. The level of live labor productivity;
- g. The strict observance of all contractual clauses.

It is not hard to understand that the units that offer high-quality products, made at lower costs than the competitors, those that have the capacity to renovate their products more rapidly and as frequently as possible, manage to steadily achieve the goods offered and to obtain higher incomes, to progress more rapidly. This fact is confirmed both on the domestic market and on the international market. As is known, under the current conditions the objective necessity of participating in the world economic circuit is acting with a greater intensity than at any time in the past. However, in order to constitute a factor in progress, this participation must be efficient and equitable. Otherwise, it leads to a decline in net national product and in national income. Consequently, the main objective of each enterprise must be not exportation at any price, but as much efficient exportation as possible and as rational and little importation as possible. This means that the producing enterprises must devote greater attention to knowing the evolution of the world market, the prices at which the goods are achieved, the rates of exchange, to continually increasing the competitive power of the products that their firm carries. The main factors on which their competitive power and, in the final analysis, the level of efficiency depend have been mentioned. They are high quality in the products furnished and the services performed, low costs, high value, as a result of incorporating as complex labor as possible, flexibility and the capacity to adapt rapidly and without very high expenses.

The factors that directly determine the level of the efficiency of economic activity are determined, in their turn, by others. The quality of the products furnished and the services performed, the level of labor productivity and of costs per unit of product and the enterprise's capacity to renovate its products depend on a number of technical, economic, organizational and social factors, such as the level of engineering and technology, the quality of raw materials and supplies, the level of training of the work force, the degree of development of science and of its technological applicability, the quality of the work performed, the nature and character of the economic relations, the manner and level of pecuniary and moral encouragement, the qualitative level of the management and organization of production and labor, the enterprise's capacity to discern and promote the new, the social climate established within the production staff and so on.

The Strengthening of Cohesion, Solidarity and Responsibility

As Comrade Nicolae Ceausescu, the NCP secretary general, specified, "Self-administration and worker self-management are not a general slogan. This means the strengthening of the responsibility of each staff of working people for achieving an output of high technicality and quality with minimum expenses, with high economic

efficiency. Each working people's council, the general assemblies and the staffs bear the responsibility for the way in which the entrusted resources are managed/*3/ is boldface.

Indeed, the growth of the cohesion, the solidarity, accountability and responsibility of each production staff, of each staff of working people in solving the complex problems of economic development and thus of the steady achievement of expanded socialist microreproduction constitutes one of the directions of the strengthening of economic and financial self-administration. In the social realities in our country any enterprise producing material use values represents a socialist production staff. Its economic foundation consists of holding, possessing in common a part of the national wealth entrusted for administration and utilization, which forms each unit's economic holdings. Consequently, the essence of this cellular entity of the national economic and social organism is the collectivism, the union of the working people, their comradely cohesion and collaboration, for the sake of the common goal.

In our opinion, the concept of "union" covers an extremely extensive content, a multitude of economic and social relations characteristic of the socialist order. Thus, in contrast to the capitalist enterprise, where the separation of the producer from the means of production "is put at the foundation, as a lasting relation," where "the capitalist is but a function of capital, and the worker a function of manpower,"⁴ where the functions of control and management do not go to the direct producers, under the conditions of socialism the members of society are, at the same time, coowners of the means of production, united socialist producers, direct participants in managing and organizing the activity, and beneficiaries of the results of the common labor. These new attributes of the members of the socialist society generate the community of basic economic interests and a goal of all the working people and represent, together with it, the moral support for the unity, for the collectivism, for the economic and social solidarity and for the accountability and responsibility of each production staff.

The Improvement of the Activity of Preparing and Substantiating the Plan

The development of economic and financial self-administration is indissolubly connected with the raising of the qualitative level of the activity of preparing and substantiating the plan for economic and social development and the income and expense budget in each economic unit. The starting point consists of understanding the growth of each enterprise's role--its powers, rights and duties--in economic and social planning, in preparing and substantiating the plan.

The providing of as comprehensive scientific substantiation as possible presupposes obligatorily, first and foremost:

- a. Thorough knowledge of the general options in the homeland's economic and social development, of the directions established by the national conferences and congresses of the party, and the assimilation of them by each enterprise;
- b. Thorough knowledge and the assimilation of the orientative levels--"minimum targets for basic physical products, value output and exportation and maximum limits for the volumes of investments and importation"⁵--and of the normative provisions of the plan--"minimum targets for labor productivity, the utilization of raw materials, production and profits per 1,000 lei of fixed assets and maximum targets for

production costs, material expenses, and consumptions of raw materials, supplies, fuel and energy.²⁶ The orientative levels and the normative provisions of the plan represent extremely important factors in economic and financial self-administration. In a sense, they represent social norms by means of which the socialist society and its economic center--the socialist state--regulate in a planned way the ratio between expenses and the results obtained in production, determine the extent of the pecuniary encouragement and of the responsibility of the self-administering links, and accomplish the distribution of the total social labor on the basis of the socially necessary expenditures.

c. The more and more comprehensive studying of the main trends of national and international economic and social life in general, of the trends of the evolution of the economic needs, of the supply and the demand. The evolution of the economic needs, of the ratio between the supply and the demand, is governed by objective laws, by relatively stable factors, with an action on the medium and long term. At the same time, their movement is marked by the influence--sometimes very strong--of factors with a situational character. As thorough knowledge as possible of the main factors and the intuiting and discerning of the situational ones constitute essential requirements for a realistic strategy and planning in the enterprises.

d. The as detailed and concrete devising as possible of the objectives and plan targets according to subtasks, people and days. Each working person must know in detail the volume of his products or of the activities that he will execute daily, their qualitative parameters, the quantity of raw materials, supplies, fuel and energy planned for achieving these targets.

Along with devising the plan targets, it is also necessary to devise and establish the concrete measures that must be undertaken in order to steadily fulfill each plan provision at the level of the planned quantitative and qualitative requirements. The concrete results confirm the correctness, utility and efficiency of the practice of drawing up vice programs of measures for fulfilling the main indicators contained in the plan: the intensive utilization of machinery, equipment and production areas; the efficient use of manpower; the growth of live labor productivity; the economization of raw materials, supplies, fuel and energy; the reduction of total costs and especially of material ones; the better utilization of natural resources; the raising of the technical level and the quality of the products; the assimilation of new products; the recovery and reuse of all raw materials and supplies resulting from the process of production and consumption; the growth of exportation, the reduction of importation, the growth of profits, and so on. These programs can become efficient instruments in the fulfillment of the plan targets and in the strengthening of economic and financial self-administration only if: a) they have a concrete character; b) they are updated whenever necessary, in accordance with the new requirements for development, with the highest achievements in national and world science, technology and economic practice.

e. The continual improvement of the information of the economic units. In order to provide realism and scientific substantiation to the plans for economic and social development, the economic units must also know, besides their own technical, economic, scientific, organizational and social situation, the situation of the economic units with a similar speciality in the country and abroad. They must know and establish the curve of the life cycle of the products, must have as clear a picture as possible of the possibilities of utilizing the products on the medium and long term;

must discern in time the main changes in the world situation; must be informed about the main orientations and trends of the other producers in the same branch or branches connected with their own activity and must plan as rigorously as possible the technical and technological changes by means of which they will be able to obtain faster progress, and so on. This means that the improvements that must be made in the information system refer, first and foremost, to the evolution of scientific research and of technical achievements, to the technical and economic parameters of the products in the branch, to the characteristics of the supply and the demand on the domestic and international markets. The information must be prompt and accessible.

2. The thorough substantiation of the income and expense budget; the growth of its role as a factor in the economic and financial self-administration of the enterprises. As Comrade Nicolae Ceausescu specified, "Each economic unit must have an income and expense budget, must finance itself, knowing that it can no longer expect to be financed from the state budget."⁷ In order to be able to fulfill their economic role, the income and expense budgets must be correlated organically with all sections of the plan for economic and social development of the respective unit and must reflect the movement of its economic holdings. At the same time, it is necessary that the provisions of the income and expense budget be laid out according to subunits and that the simplistic view that reduces the role of the income and expense budget to a mere instrument of financial technique be transcended everywhere. As has been pointed out by specialists in the matter, "Some managements of enterprises continue to view the income and expense budgets more as instruments of financial technique that should enter into the exclusive province of the financial and accounting departments."⁸ The budgets, reflecting the entire financial activity of the enterprises and the movements that occur within their holdings, represent the main instrument of action, the most important factor for achieving each enterprise's financial equilibrium and a permanent equilibrium between payments and receipts. This means that the enterprises must devote greater attention than in the past to providing the capacity to make the payments falling due, to continually maintaining optimum liquidity.

[No 3, 16 January 1981, pp 19-20]

[Text] Innovation and Invention--Attributes of the Modern Enterprise's Strategy

The amplification of the scientific and technical revolution, the acceleration of the rate of growth, diversification and change of the content and structure of the material needs, the accentuation of the shortage of natural and energy resources, the growth of the interdependences between the national economies, and the intensification of the competitiveness on the international market have transformed rationalization, innovation and invention into imperatives of the modern enterprise's activity. Rationalization, innovation and invention have become essential aspects of the enterprise's strategy, of the scientific management of any economic unit.

The X-ray of the economic and social reality in the economically advanced countries in the last two decades confirms indubitably the decline at a rapid rate and on a mass scale in the number of enterprises that have operated--if we can express ourselves in this way--"by virtue of inertia" and the accelerated growth in the number of enterprises that base their activity on the strategy of innovation and invention.⁹

As is known, the number-one objective of the enterprises that operated by virtue of inertia was the growth and improvement of what existed. Consequently, their motto was "more and better." In contrast to them, the enterprises based on the strategy of innovation and invention have understood and recognize that existing things are subject to a process of depreciation through wear and tear and/or obsolescence, that material production must be modernized continually and the products improved qualitatively and renovated frequently. The main motto and watchword that give content to this strategy are synthesized in the formula "new, better, finer, more efficient." An enterprise that does not manage to assert itself in the field of rationalization, innovation and invention, that is, in the field of promoting the new, and performs its activity in the atmosphere of inertia and immobilism inevitably lags behind. A management forum that does not succeed in consistently organizing, stimulating and promoting rationalization, innovation and invention is, in our opinion, incompetent from a professional viewpoint and not suited to the functions that devolve upon it within the framework of economic and financial self-administration and worker self-management.

The orientation of the creative efforts of the enterprises toward major, profound and efficient transformations and changes constitutes another postulate of the strategy based on innovation and invention. The explanation is simple. It is found in the fact that minor, insignificant changes made in a technology or product are often just as difficult as the invention of other, new ones and the risk of failure is quite high.

The changes achieved in the characteristics and functions of a technology or product in an enterprise or in a more extended economic perimeter can be imitative or creative, original. Without denying the importance of taking up and reproducing under certain conditions achievements obtained elsewhere, in order to accelerate economic and social development, we feel that, besides knowing and promoting the latest results obtained on a world level, it is absolutely necessary for the enterprises to orient themselves toward truly creative changes with higher performances. The truth is that in the case of imitative improvements one nevertheless takes an open path, sometimes even trodden by others, and consequently those who take this path can never be situated in the front rank. In order to get to and stay in the front ranks of progress, its vanguard, the economic units must take a new path, the path of innovation and especially of invention.

The field of manifestation of the creative spirit, of the potential for innovation and invention of the enterprise is extremely wide. It includes the technical-material supply, production proper, sales, transportation, that is, all stages of the movement of the enterprise's assets. The activity of rationalization, innovation and invention can have as an object the means of labor, the objects of labor, the management and organization of production and labor, practically all the component elements of the work process, of individual expanded socialist reproduction and that on the scale of the whole national economy. With good reason, Emilian Dobrescu writes that "besides orientations specific to the different branches, some common directions can be mentioned: the considerable expansion of the range of productive uses of natural resources, the transition to the use of some energy sources, the massive development of the manufacture of substitutes for physical raw materials, the recycling of materials and the utilization of industrial waste, the integration of the technological processes and the grouping of equipment, the expansion of the mechanization and automation of the technological and work processes, the management of them with means of automation, environmental protection."¹⁰

The innovative strategy is based on and achieved through the development and utilization of each economic unit's creative potential and the improvement of the collaboration with scientific research. Technological innovation and, especially, invention presuppose the permanent cultivation and the encouragement of the creative attitude, that of continually seeking and promoting the new. The fact being well known that sometimes, in the early stages, brilliant ideas and bad ideas are very hard to tell apart, that some and others appear equally brilliant and equally absurd, equally realistic and equally impossible, equally attractive and equally unattractive, it is necessary to expand and extend scientific research and, at the same time, to amplify the practical experiment. In this way, the hypotheses issued and the theories formulated are verified and the distinguishing of the true ones from the false ones is provided, the knowledge about the laws that govern movement in the natural and social universe and about the possibilities and methods of using them in economic activity is supplemented.

By its essence, the creative attitude is revolutionary and is in an irreducible opposition to immobilism in thought and action, to inertia and the act of going one's own way. Original, creative thought and action cannot be squeezed into certain rigid, dogmatic molds and patterns, which accentuate immobilism, exert an inhibiting influence on the people involved in creative activity and constitute one of the important causes of the discrepancy that sometimes exists between the creative potential of the units, on the one hand, and the performances achieved, on the other.

Consequently, the management forums of the economic units must accord greater importance to the stimulation of creative activity, of the movement of rationalization, innovation and invention, through the creation of a suitable social climate, the providing of a minimum material base, the providing of as extensive scientific and technical information as possible, the pecuniary and moral encouragement of the worker personnel, the immediate utilization of the creative capacity and of the results obtained.

More concretely speaking, the consistent promotion of the strategy based on innovation and invention presupposes:

a. The orientation of the activity of creation--rationalization, innovation, invention--in accordance with the real needs of society, with the solvent demand of the market and with the basic directions of economic and technical progress.

b. The orientation of the movement of rationalization, innovation and invention toward a concrete goal, spread out in time, and the pursuit of the course of this activity, as well as of the as prompt utilization as possible of the achievements obtained. The movement for rationalization, invention and innovation does not represent an end in itself. It does not end along with the devising of a measure for rationalization or of an innovation or invention. Their efficiency is measured not only by means of the cognitive contribution but also by means of the concrete results that their application in one field of production and social reproduction or another brings. Consequently, the management forums and the production staffs must establish with precision the goals and objectives of this movement and must provide all the conditions for finalizing all the results obtained.

c. The stimulation of the factors with a positive influence on the social climate, the creative attitude and activity in each economic unit. In our opinion, under the

conditions of the current scientific and technical revolution and of self-administration and worker self-management, the acquisition and development of the aptitudes for rationalization, innovation and invention are becoming an objective necessity for the mass of producers, and the activity of rationalization, innovation and invention in the field of the specialty is becoming more and more a new general profession of the working people. In this regard, a strong stimulative role is played by the groups, microgroups and staffs set up specially, often under various names ("the foremen's council," staffs for scientific and technical creation, and so on), for the development of creative activity, which should become--as someone put it during a discussion--"creativity-generating stations."¹ The responsibility, principledness and competence of each member of the group, together with the mutual respect and sympathy among them, play a highly significant role in the formation and progress of such staffs. These elements "oxygenate" the whole social climate of the staff and increase its creative potential.

d. The elimination or reduction of the factors with inhibiting influences on the creative climate, attitude and activity, such as bureaucratic ideas and attitudes, the complicated and costly organizational procedures for recognizing and confirming the results, which, for these reasons, take a long time, the lack of receptivity toward the new by some management personnel, the fear of the possible or presumed complications that may be generated by the application of the new and other economic, technical, organizational and psychological factors.

e. The acceptance of the risk of failure and of the risk, often more harmful, of pseudosuccess. As is known, innovators and, especially, inventors, although equipped with the "compass" of science, rush nevertheless into the realm of the unknown. There they continue the research, in which we also include the experiment, innovate or invent. Their work fulfills a dual role--one gnoseological and one applicative--and thus helps to add to the legacy of scientific knowledge and of the practical experience of economic and social change, growth and development. The activity of technological innovation and especially of invention is not exempt from the influence of unforeseen and/or unknown factors and, consequently, bears certain risks. These risks involve the goal pursued, the purpose established. The risk--the possibility of causing harm--can become a reality in the case of failure and of pseudosuccess. Consequently, in our opinion, the taking of the risk factor into consideration constitutes proof of the high competence of the management and organization of the activity of scientific research, innovation and invention. By means of this, more thorough preparation for the activity--an essential condition for the prevention of failure--is provided. The acceptance of the risk of failure or pseudosuccess and the taking of them into consideration make it necessary to devise in advance alternatives of orientation and action in the case of failure and, by means of this, the reduction of its negative influences is provided. This is the place for us to point out that the acceptance of the risk of insuccess does not and cannot mean the theoretical justification of incompetence in thought and action. Incompetence is the direct cause of the certainty of insuccess, of failure, of pseudosuccess and not of their risk, while competence is an essential condition for success, for victory. It reduces and, sometimes, eliminates the risk of insuccess. However, the main thing consists of as thorough preparation as possible--theoretical and practical--for creative activity--of rationalization, innovation and invention--a basic factor in economic and social progress.

[Text] The Improvement of the Records and Control of Economic Activity

The consciously guided, planned management, organization and performance of economic and social life on a macro- and microscale are inconceivable without a unitary and efficient system of records and control. "Records and control--these are," V. I. Lenin said, "the main thing necessary for the 'organization,' for the proper functioning of the communist society in its first phase."¹² The efficient application of the new economic and financial mechanism, the consolidation of self-administration and the improvement of worker self-management require with objective necessity the continual improvement of the system of records and control and the growth of their efficiency. "Along with improving the organization and management of the national economy and expanding the powers of the centrals and enterprises," Comrade Nicolae Ceausescu pointed out, "it is necessary...to improve the economic and financial control."¹³

The current stage of economic and social development raises before records and control new problems and tasks that amplify and enrich their functions within the framework of the cycle of the scientific management of economic and social life. Without going into details, we mention that the control activity is called upon to help:

- a. To know "thoroughly the way in which--in absolutely all sectors and fields of activity--the laws and the decisions of the party and the state are applied..."¹⁴
- b. To know exactly and verify the way in which the economic units administer the material and financial resources that they have;
- c. To prevent deviations from and violations of the laws, standards and norms for normally managing, organizing and carrying out economic and social activity;
- d. To reveal the possible deviations from the legislation in force and those who are guilty and to establish the methods of recovering the damages and correcting and improving the activity. The task of control--V. I. Lenin said--"is not or is not both 'to catch,' 'to establish culpability'...and to rectify things. To know how to rectify, you must, first, study and know the organization of the labor in such and such an institution, enterprise, section and so on and must, second, make in due time the necessary practical changes, put them into practice."¹⁵
- e. To concretely, effectively aid the enterprises in solving the problems with which they are confronted in the activity of fulfilling and overfulfilling the plan provisions;
- f. To strengthen order, financial, work and plan discipline, to develop personal and collective accountability and responsibility. As Comrade Nicolae Ceausescu pointed out, "No one can claim that autonomy and powers mean the use of society's money, of national wealth without control and without approval. We must understand that the resources that society possesses are unique and must be used in a single direction and we cannot leave it up to each to expend them as he wants. The general resources of society must be administered in a unitary way..."¹⁶

g. To improve the scientific substantiation of the decisions, to raise the qualitative level of the management and organization of economic activity. "Scientific Management," Comrade Nicolae Ceausescu specified, "requires, in fact, simple and clear records, but capable of providing precise knowledge of reality, exact records and strict control.... Systematic control and good records are needed in order to manage. In fact, the need for control and records, achieved, of course, in relation to the development that the production forces and society in general have experienced in the respective period, has made itself felt in all social orders. All the more today, under the conditions of the vast progress in technology, as a result of the modern scientific revolution, and of the growing complexity of the tasks that are posed in the work of building socialism, the matter of control and records becomes essential in order to achieve suitable management of economic and social activity with good results."¹⁷

h. To increase the efficiency of the activity of the enterprises and strengthen their economic and financial self-administration. The supreme criterion that must take precedence in the activity of the control bodies is the rational administration of the national economy's resources, the ensuring that all material and monetary assets contribute to the continual development and flourishing of the national economy and its component units--the enterprises, centrals and other economic units.

The fulfillment of these functions, amplified and enriched in content, requires necessarily that in the field of records and control action be taken, first and foremost, in the following directions:

1. The expansion of the sphere of records and control. They must include the entire movement of the holdings of the economic units, all the processes that the enterprise's assets go through and all the metamorphoses that they experience, all departments of activity, all participants in managing, organizing and carrying out economic and social activity.

2. The providing of an optimum frequency of control.

3. The improvement of the organization of the records and control. In this regard, there must be unitary guidance and coordination of the record system--the statistical, bookkeeping, technical and operational records--and of worker, financial and banking control and the other forms of control and their better coordination in time and space, in order to ensure the elimination of overlapping--excessive control, on the one hand, and exact knowledge of the economic situation of the enterprises at any moment.

4. The raising of the qualitative level of the content of the records and the control activity. In this regard, it is necessary to continue with greater consistency the concerns for increasing the degree of qualification of all personnel entrusted with functions of control, for developing their spirit of responsibility, their strictness and advanced consciousness. At the same time, it is necessary to improve the content of the control activity. The control must not amount to merely finding, recording and eventually reporting the things found. As the secretary general of the Romanian Communist Party, Comrade Nicolae Ceausescu, pointed out, "The control must help to solve the problems in the respective field of activity--must thus not be a formal inspection but must result in concrete measures for improving the work."¹⁸ **[in boldface]**. Manifestations of formalism, of superficiality alter the

content of the control activity, reduce its role and functions and, in the final analysis, negatively affect the atmosphere existing in the production staff and its entire activity. The elimination of these negative manifestations presupposes obligatorily the providing of clear and complete records, inspections and checks, the elimination of the narrative and descriptive character of inspections and the performance of as thorough analyses as possible, which should bring out the real and concrete causes of the shortcomings, the factors who bear the responsibility, should synthesize the positive experience and should formulate concrete measures that would ensure the immediate elimination of the shortcomings, the overcoming of the possible difficulties and the improvement of the quality of all economic and social activity.

5. The continual providing of a concrete purpose, the growth of the efficiency of the whole control activity. Records and control—observation, verification, inspection—do not represent an end in themselves. Records and control are internal aspects of the work of scientific management. Consequently, their organization and performance must have as multilateral a concrete, clear purpose as possible. The results of the records and control must—if we can express ourselves in this way—be utilized at as high a level as possible, in the interest of economic and social progress. In our opinion, the control activity is finalized, first and foremost, by means of:

a. The quantity and value of the information obtained for the management forums about the enterprise's general situation, for the purpose of substantiating the decisions referring to its activity. The more quantitatively and qualitatively comprehensive, accessible and prompt the information is, the greater are the possibilities of scientifically substantiating the decisions and the more realistic and mobilizing they are;

b. The number and value of the solutions proposed for solving problems and of the measures established for eliminating the shortcomings, for extending the positive experience, for promoting the new, in general, for raising the qualitative level of the entire economic and social activity of the enterprises;

c. The concrete efficiency of the application of the measures and solutions established during the control activity. This means that, in fact, the control, in its essence, does not end along with the devising and adoption of measures, of the decisions. It must also include the act of keeping track of the promptness and the manner of application of the established measures by means of which, in fact, the process of finalizing the control activity is concluded. We stress this fact because, unfortunately, there are cases in which the inspected enterprises or subunits, sometimes even some control bodies, believe that the control activity ends along with the establishment of the measures, although it is as clear as can be that these measures cannot be truly and completely utilized except through their immediate application. This is the place for us to mention that the efficiency of the control activity can be and is of a technical, organizational, economic and educational nature, this contributing to the development of the production staff, to the raising of the quality of the activity performed, in the quantitative growth and qualitative improvement of the results of this activity.

FOOTNOTES

1. Regarding the concept, functions and characteristics of the socialist enterprise, see the study published in the supplement to REVISTA ECONOMICA, No 2, 1981.
2. Nicolae Ceausescu, "Romania pe Drumul Construirii Societatii Socialiste Multilateral Dezvoltate" [Romania on the Way to Constructing the Multilaterally Developed Socialist Society], Vol 15, Politica Publishing House, Bucharest, 1978, p 525.
3. Nicolae Ceausescu, "Romania pe Drumul Construirii Societatii Socialiste Multilateral Dezvoltate," Vol 17, Politica Publishing House, Bucharest, 1979, p 503 (the boldface is ours--A. N.).
4. K. Marx and Fr. Engels, "Opere" [Works], Vol 26, Pt 1, Politica Publishing House, Bucharest, 1980, p 598.
5. Cf. Article 13 of the Law for Amending and Supplementing Law No 8/1972 on the Planned Economic and Social Development of Romania, published in BULETINUL OFICIAL AL REPUBLICII SOCIALISTE ROMANIA, No 58, Pt 1, 13 July 1979, p 4.
6. Idem.
7. Nicolae Ceausescu, "Romania pe Drumul Construirii Societatii Socialiste Multilateral Dezvoltate," Vol 15, Politica Publishing House, Bucharest, 1978, p 626.
8. Alexandru Babe, "Self-Administration—an Instrument for Raising the Qualitative Level of Economic Activity," REVISTA ECONOMICA, No 10, 7 March 1980, p 19.
9. See: Peter F. Drucker, "Innovative Organization," DIALOG-SUA, 1978, Vol 7, No 3, pp 3-12.
10. Emilian Dobrescu, "Optimul Economiei Socialiste" [The Optimum of the Socialist Economy], Politica Publishing House, Bucharest, 1976, pp 127-128.
11. Cf. CONTINUTORANUL, No 16 (1,745), 18 April 1980, p 6.
12. V. I. Lenin, "Opere Complete" [Complete Works], Politica Publishing House, Bucharest, 1964, p 100.
13. Nicolae Ceausescu, "Romania pe Drumul Construirii Societatii Socialiste Multilateral Dezvoltate," Vol 6, Politica Publishing House, Bucharest, 1972, p 906.
14. Nicolae Ceausescu, "Romania pe Drumul Construirii Societatii Socialiste Multilateral Dezvoltate," Vol 7, Politica Publishing House, Bucharest, 1973, p 47.
15. V. I. Lenin, "Opere Complete," Vol 44, Politica Publishing House, Bucharest, 1967, p 167.

16. Nicolae Ceausescu, "Romania pe Drumul Construirii Societatii Socialiste Multilateral Dezvoltate," Vol 9, Politica Publishing House, Bucharest, 1974, p 632.
17. Nicolae Ceausescu, "Romania pe Drumul Construirii Societatii Socialiste Multilateral Dezvoltate," Vol 7, Politica Publishing House, Bucharest, pp 46-47.
18. Nicolae Ceausescu, "Romania pe Drumul Construirii Societatii Socialiste Multilateral Dezvoltate," Vol 7, Politica Publishing House, Bucharest, p 47 (the boldface is ours--A. H.).

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ROMANIA

DECREE ON STANDARDIZATION OF CONSTRUCTIONS, TECHNIQUES, MATERIALS

Bucharest BULETINUL OFICIAL in Romanian Part I No 123, 31 Dec 80 pp 1-3

[Decree of the Council of State on the Standardization of Constructions, Techniques and of Materials and elements for Construction and Installations]

[Text] The continuous improvement in the technological and qualitative standard of investment projects by completing constructions with minimum consumption rates for materials and energy, shortening the construction cycle, increasing labor productivity in planning and completion of projects, minimizing the weight and cost of constructions, promoting the most advanced production techniques, and achieving high efficiency, calls for the upgrading of the activity of standardizing constructions, techniques, materials and elements for constructions and installations and for the reduction of designs and types of materials used to the strictly necessary level.

To this end,

The Council of State of the Socialist Republic of Romania hereby decrees:

Article 1. All types of constructions within the framework of the investment projects which are completed in industry, agriculture, transportation and the other production branches, and the construction of dwellings and socio-cultural and administrative facilities shall be achieved only on the basis of standard designs, in accordance with the provisions of this decree.

The standard designs shall state the areas and major dimensions of the construction units, the structural approaches, the maximum consumption rates for construction materials and installations, and the maximum estimate cost for the construction and installation projects.

The standardization of constructions shall be made in close connection with the standardization of production techniques and of equipment, so that the size of the buildings and of the other structures may strictly correspond to the needs for the smooth progress of production processes.

In special situations, the designing and completion of construction projects based on unique designs may proceed only on the basis of the approval given,

in compliance with the law, for each case, by order note.

Article 2. Approval is given for the standard designs of constructions and techniques, specified in the lists of Appendix No 1.*

The standard designs specified in the previous paragraph are mandatory for all units, regardless of their subordination, which are supposed to complete such projects.

The consumption rates of materials for standardized constructions and the value of the construction-assembly projects, specified in the standard designs, are maximal.

Article 3. Only materials and elements for standardized constructions and installations, and materials from local resources may be used in constructions of any kind, in accordance with the provisions of this decree.

Article 4. The lists of materials and elements for standardized constructions and installations, specified in appendixes No 2 a and 2 b*.

The materials specified in the standard designs may be replaced by other materials from local resources, provided the cost of the project and the consumption of energy are reduced and the resistance and durability of the constructions are ensured.

Article 5. The incorporation into the economy of new standard designs and new types of materials may only be made if these assure lower consumption rates for raw materials, supplies, energy, fuel and manpower, on the basis of the approval given by decree of the Council of State.

The designers are required in preparing the investment documentations to use standard designs and specify in these documentations only standardized materials, as provided by law.

The units of research and engineering and of design for construction are required to continue the program for upgrading the standard designs and the projects for standardization of construction materials, for improving and simplifying the existing structural approaches, to formulate and forward for approval new standard designs which should ensure greater efficiency and lower consumption rates for energy and materials.

The research units and the production units are required to continuously improve the technological and qualitative features of materials for constructions and installations and to upgrade the production techniques, for the purpose of lowering the energy consumption levels, eliminating imported raw materials and evolving substitute materials with greater effectiveness.

* The appendixes shall be forwarded to the parties concerned.

Article 6. As a result of the application of standard designs and standardized construction materials, and of other actions, the maximum quantities of materials needed for achieving the construction-assembly volume specified at the time of this decree for the 1981-1985 period, allocated to the various ministries and the other central bodies, are those stated in Appendix No 3*.

In light of the modifications in the construction-assembly volume approved under the uniform national plan for socioeconomic development, the maximum quantities of necessary materials shall be correspondingly recalculated.

Article 7. The ministries and the other central and local bodies are required to take steps so that the subordinate units may use in completing investment projects standard designs and materials for standardized constructions and installations, to further upgrade the standard designs and standardized materials and to assure the strict implementation of the provisions of this decree.

Article 8. The Ministry of Forestry and Construction Materials, the other ministries which turn out construction materials and the people's councils of counties and of Bucharest Municipality shall offer suggestions for further reduction in the types of materials and elements for constructions and installations, for the purpose of lowering the consumption rates for raw materials and supplies, energy, and fuel, for evolving materials of superior quality in the context of high technical level and great economic efficiency.

Article 9. In the production of construction materials, the Ministry of Forestry Economy and Construction Materials, the other ministries and central organs, and the people's councils of counties and of Bucharest Municipality are required to take steps to expand the use of local materials, the ashes from thermoelectric power stations, blast furnace and steel plant slag and other reusable materials.

Article 10. The Ministry of Forestry Economy and Construction Materials shall take actions to improve the carpentry for construction, to minimize timber and metal consumption for the production of doors and windows and to upgrade heatproofing, for the purpose of minimizing the loss of heat.

The program on upgrading the structural and functional approaches for construction carpentry, specified in Appendix No 4*, is approved.

Article 11. The Ministry of the Chemical Industry, the Ministry of the Machine Building Industry and the Ministry of the Metallurgical Industry shall take measures to further reduce the number of types of materials and elements for constructions and installations in their production pattern, provided for in appendixes No 2 a and 2 b**, and shall submit for approval, by 31 March 1981, the upgraded lists.

* The appendixes shall be forwarded to the parties concerned.

Article 12. The people's councils of counties and of Bucharest Municipality are required to assure the application by all subordinate design and construction units of the standard designs and standardized construction materials, to formulate proposals for the constant upgrading of the standard designs used in the construction of dwellings and sociocultural facilities, to take actions for the development, in the context of small-scale industry, of the production of construction materials from local resources and reusable materials and, on this basis, to achieve lower consumption rates for raw materials, supplies, energy, fuel and manpower.

Article 13. The councils of working people, the trade union organizations, and the other mass organizations shall constantly take actions so that the workers, technicians, engineers, researchers and designers may thoroughly assimilate and strictly apply the provisions on the standardization of constructions, techniques and materials for constructions and installations, for the purpose of continuously upgrading the technical and qualitative standard of constructions, increasing their efficiency, minimizing the consumption rates for materials, specifically of those that involve use of high energy levels, and broadly utilizing materials from local resources.

Article 14. The Council of Ministers is answerable for the application, throughout the economy, of the standard designs and materials for standardized constructions and shall supervise the manner in which the ministries and the other central and local bodies exercise the powers assigned to them under the provisions of this decree.

Moreover, the Council of Ministers shall take actions for the constant upgrading of the standard designs and of the materials for standardized constructions, for the purpose of large scale incorporation of technological progress, the upgrading of the quality of constructions, the reduction of consumption levels for raw materials, supplies, energy and fuel, and the rise in economic efficiency.

Article 15. The coordinators and recipients of investments, in conjunction with the design units, shall revise, within 90 days after the date of this decree, the documentations for completion of the investment projects approved, whose work did not commence, and those of the units not started within the framework of the investment projects in the course of completion, for the purpose of incorporating the new approaches to standard designs.

Article 16. Violation of the provisions of this decree entails, as the case may be, material, disciplinary, contraventional, civil, or penal liability.

Article 17. Appendixes No 1, 2 a, 2 b, 3 and 4 are integral parts of this decree.

Nicolae Ceausescu
President of the Socialist Republic of Romania

Bucharest, 30 December 1980.
No 418.

11710
CSO: 2700

UPS, DOWNS OF PRIVATE SHOPKEEPERS REGISTERED

More Fruit, Vegetable Stands

Belgrade NEDELJNE INFORMATIVNE NOVINE in Serbo-Croatian No 1571, 8 Feb 81 pp 24-25

[Article by A. Tijanic: "Private Shop--Socialist Trade"]

[Text] Delegates of the Belgrade Assembly have voted to allow the opening of privately owned stores. Nevertheless, it is not fair for the public sector of trade to be given all the blame for possible shortages, as has been the case up to now.

It is too much to expect that commencing to create a private "network" of stores will be sufficient to withstand the commercial "giants" and the shortages thanks to its level of supply, its efficiency, its quality services and its geographic distribution. But perhaps the private storekeeper, to the consumer's gratification, will take advantage of the opportunity which the regulations are offering him.

So far only those selling fruit and vegetables have been granted licenses in the capital to open private shops. There are some 10 of them in all. Last week's decision of the delegates, which is in conformity with the Law on Commodity Trade in Serbia, allows storekeepers in Belgrade hereafter to sell not only fruit and vegetables, but also articles for personal use, cleansing agents, small farming implements, tobacco and tobacco products, matches, souvenirs, stationary....

There Were Some Who Thought Otherwise

There were some who thought otherwise in the Belgrade Economic Chamber, local communities and the Socialist Alliance. They felt that the public sector was sufficiently widespread and capable of meeting all the needs of the public.

The decision of the delegates makes it incumbent upon urban opstinas in the center of the city and those on the periphery to allow shops to be opened if there is a need for a (private) store.

Jovan Danilovic, secretary of the Association of Commercial Organizations of Associated Labor in the Belgrade Economic Chamber, says that he does not see any place for private storekeepers in the center of the city, since the public sector is

strong there, but on the other hand they can fill "gaps" in new settlements and on the periphery.

Both the law and the decision of the delegates are crystal clear as to their intentions. In this economic situation and the shortage of funds for large investments in new shopping centers, the commitment of private money to purchase space, goods and equipment will be welcome. All of this signifies more people employed and there is always an opportunity for storekeepers to be oriented and located according to the needs of the public through an "astute" policy on the part of opstinas.

We have obtained information from editors of the local pages of VJESNIK (Zagreb), OSLOBODJENJE (Sarajevo) and NOVA MAKEDONIJA (Skopje) on the situation in those cities. Under a city decision 2 years ago fruit and vegetable stands can be opened in Zagreb only on the periphery of the city. At the moment there are some 15 such shops, mainly at points in which the public sector has no interest.

Sarajevo, Zagreb, Skopje ...

Such shops did exist previously in Sarajevo, where they were known as "fixed-tax-assessment shops," but some 50 of their owners have today pooled their labor with organizations whose goods they were selling. That at least is how it appears, though informed sources say that organizations of associated labor are continuing to sell goods to the former owners, and the latter are passing on to their customers their personal income, weight loss, spillage... In Skopje opstinas have issued about 100 permits, but only 7 private shops have been opened.

In the Banjica section of Belgrade two private commercial businesses have been operating for some 20 days. The owners put their capital together and built a store at ground level, which cost them 40 million old dinars apiece. One of them, Stanoje Puric, has become a private businessman after 12 years in associated labor. After 27 years spent working for Centroprom, he knows his job well and is on his "home ground." His store is overflowing with bananas, lemons, eggs and apples. Stanoje says that he has three kinds of cabbage--ordinary, Dalmatian and red, four kinds of grapes, two kinds of bananas, sauerkraut in the head and shredded, hot peppers, bell peppers, and--a large clientele. The owner believes that the new regulations on the longer list of products which are approved for sale will increase his total turnover, but he emphasizes that his opportunities to purchase goods are limited.

[Box, p 24]

What are the direct consequences of opening private shops? If they branch out too much, won't the opstina officials be tempted to "control" them with excessively high taxes; which would result in closing them down? Or on the other hand, because of the limited number of articles, strict inspectors and complicated licensing procedure (waits up to 16 months) will the private shops remain so rare that they need to be preserved as curiosities? We talked about this with Aleksandar Rostic, deputy Belgrade municipal secretary of the economy. Here is his opinion: "The opening of private fruit and vegetable stands has been allowed for 3 years

now in the capital, but there has been little interest because they are restricted to the sale of fruit, vegetables and eggs. In that 3 years 11 such stores have been opened. They have moreover been located away from the center. Now the decision of the delegates has expanded the assortment of goods so as to improve the supply to the public, but it was also aimed at attracting a larger number of parties interested in committing their own capital to the opening of private stores. I can tell you that this initiative came from people who were themselves interested, in the face of the different opinion expressed by large and small commercial organizations in the socialized sector. I do not think that this decision will create a parallel commercial network. There will be as many private shops in Belgrade as there is room for them on the market, and that is the sole criterion. We have now also issued a decision to register stalls in the open-air market, which some have referred to as the "legalization of merchants." That is, we have permitted fruit and vegetables to be sold even by persons who are not the actual producers under the conditions that also apply to private sellers of fruit and vegetables."

Socialized and Private Fruit

One customer, Milena Miljus, has been doing her buying in this shop since it opened "because the goods are better than in the supermarket next door." However, Stanoje buys his goods in the warehouses of Centroprom and the FKB [Belograd Agro-industrial Combine] at a price which is lower than his sales price. Which means that the socialized and private fruit is guaranteed to be of the same origin. But the prices are not the same. Contrary to what one would expect, Stanoje's are even higher.

Bananas are 58 dinars, lemons 46, eggs (extra large) 6.5, a kilogram of Sombor cheese 270 dinars.... He is still not buying directly from the farmers, though in this case the produce would be cheaper--since they would not pass through "five different hands." In any case, like all private storekeepers, Stanoje thinks that business books are a typical case of spite on opatina inspectorates in order to make life miserable. The inspectors require strict keeping of figures on "incoming and outgoing produce," and the owner says that this means taking a daily inventory, which takes up a great deal of time. Each of the fruit and vegetable stores employs two people.

What have been the first experiences? The owners were exempted from paying taxes in the first business year, they pay reduced rates in the second and third, they have the opportunity of direct purchasing of goods from actual producers, they have no costs of maintaining coolers, large warehouse space and administration.... But the produce is still not cheaper. Although, one must confess, it seems to be better than that in the socialized sector. The number of such shops and the possibilities for their location indicate that the private tradesman will not at all be a competitor to the socialized sector (at present), but only a supplement.

Tax Assessors' Hostility

Belgrade MLADOST in Serbo-Croatian 9 Jan 81 p 5

[Article by Jovan Kozomara: "Taxes Have Held Back the Crafts and Trades"]

[Text] In the crafts and trades there are important opportunities to create new jobs, but the policy of opstinas toward private businessmen has in many respects made the conditions difficult for a more rapid resolution of the unemployment problem. In Serbia proper alone craft and trade shops could in the foreseeable future "open up" jobs for about 270,000 people--one in four have only one worker--but since this plan is not budging, this is another thing that will probably remain only a plan, for which we should thank the incomprehensible attitude toward those who own these establishments.

The skeptics say that every craft and trade shop cannot employ five workers (which was the basis for arriving at those 270,000 jobs), but when we realized that there would be about 80,000 workers in those who can, and that those which would be opened in the meantime could hire approximately the same number, then their calculation becomes clear: crafts and trades in Serbia proper could decide the "destiny" of about 160,000 persons who are now unemployed, mainly young people and skilled people, in just the next 2 years.

The computations might even be made differently, and yet in the end there would be about 130,000 new jobs. So, the opportunities are there; unfortunately there are a number of incomprehensible reasons why we will have to wait a bit, it seems, for this plan to be carried out.

Tradesmen Do Not Want Successors

Resort to the help of statistics can explain better than many statements and analyses the situation in which the crafts and trades have found themselves when things are looked at a bit more closely; it is then that we see the "checks" on carrying out this plan. Since 1970 the number of craft and trade shops in Serbia has been dropping steadily: in 1978 there were exactly 20 percent fewer than in that previous year. Why?

One of the reasons is that the products and services of certain craftsmen and tradesmen have become uninteresting to consumers. Another is that the opstinas have in the meantime altered their "policy" and many of them could no longer see their way clear to operate because of taxes, still others were affected by the diminished interest of young people in this type of activity, and this is something else that has affected the position of those who have remained in this sector. Fourth, there is the fact that many people have found their security in the "nursery of the state...."

There are dozens of reasons. In any case, doesn't the fact that in 1972 private craftsmen and tradesmen had about 4,500 apprentices, and 7 years later they did not have even 1,000, best explain the interest in private business? If it is true that private craftsmen and tradesmen are "recruited" from them--and specialists

say that this is precisely the case--then we can understand why the crafts and trades have fallen into such an unenviable situation and why there are few prospects for it to emerge quickly from that situation.

"Six years ago I had five apprentices, since it paid for me to have them. And them as well. Now I have none, since the taxes are so high that I barely meet the opstina assessments. In other words, my earnings do not allow me to take on young people.... If there were any change at all in this, I would probably decide to have them once again," says Milan Vasovic, owner of a tailor's shop in New Belgrade.

Explanations similar to his have been given by other craftsmen and tradesmen as well, regardless of their opstina and the type of services they render. What might be of particular interest is the fact that the number of workers in these shops have been the same for nearly 8 years now. Since 1972 it has stayed about 14,000, though in some years it has risen by a few hundred and in others dropped by the same amount.

So private businessmen are not motivated to hire new workers; tax policy has to a great extent prevented augmentation of the volume of output (of services in craft and trade shops), and have thus indirectly made it more difficult to reduce the number of unemployed in the opstina.

Only Taxes Have Risen

Something else expressed in interviews of certain craftsmen and tradesmen was this: since 1973 when the business books were introduced, a large number of private businessmen have gone out of business. Unaccustomed to this kind of "activity," especially the older ones, they often sought the help of professional accountants, and the latter in turn collected exorbitant fees for their moonlighting not recorded with tax authorities. Many did not put up with this--and they went out of business.

Others would pay penalties because of violations of this kind, and when they "got tired of it," they looked for new jobs in the public sector. There were few who continued to pay the penalties and who kept operating in the same way.

Certainly all of this has reduced young people's interest in the crafts and trades, since in the meantime the impression has been gained that inspectors are "skinning" the private businessmen--when they like and as much as they like, and that private business does not pay. And those business books, we were told by many, are often a mere formality and are unnecessary in the operation of a radio repair shop, a tailor's, a barber's, a body shop....

"They were not introduced in order to monitor revenues, but in order to collect penalties. After all, where the opportunities for unmonitored earnings are great (hostelry or butcher shops), the inspectorate can establish how much any of them has actually earned without the books, and at the same time, where all those things are well known and where collection can be made on the basis of a fixed annual assessment, they have been making money collecting penalties because of these

business books. There were few people who knew how all that should be done and summed up at the end, and they had to assume extra expenses for the bookkeepers who would finish it up for them," said the cobbler Vaso Kozar.

Here are some more figures which unquestionably indicate the inclination of the opstinas to merely raise taxes by introducing the business books: by comparison with 1972 net personal income of private craftsmen and tradesmen has increased 97 percent, while taxes in that time have risen all of 178 percent.

Assuming New Conceptions

By taxing every dinar earned by the private craftsmen and tradesmen, then, the tax services, that is, the opstinas, have been earning money, but at the same time they have been losing many new shops in the service activities. Or the owners have curtailed their volume of operation, have stayed out sick, have withdrawn in various ways--they simply have not had the least desire to "develop" their shops and thus to create opportunities for opening up new jobs.

That is why the situation has come about today where many people in numerous opstinas simply do not know what to do when some electrical appliance of theirs, for example, breaks down. So they call upon unregistered servicemen, those who do not have a licensed shop and whose earnings cannot be monitored at all. Many of them have in the meantime accumulated large sums with the "blessing" of those same opstina inspectorates which bear direct responsibility for preventing illegal enrichment.

This year many republic agencies have given the green light to the granting of numerous exemptions and deductions with respect to the tax policy toward self-employment. It is believed that they will not remain just promises, but before anything is achieved, it is apparently necessary to shatter the long-standing conceptions of private craftsmen and tradesmen and of the opportunities they have to become rich very quickly and easily through self-employment.

Otherwise all the efforts will be unsuccessful, and in future the talk will merely continue about plans under which the private sector in Serbia proper could employ those 270,000 or 160,000 of those now unemployed--the actual figure makes no difference.

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